33(2)

Fisheries Review

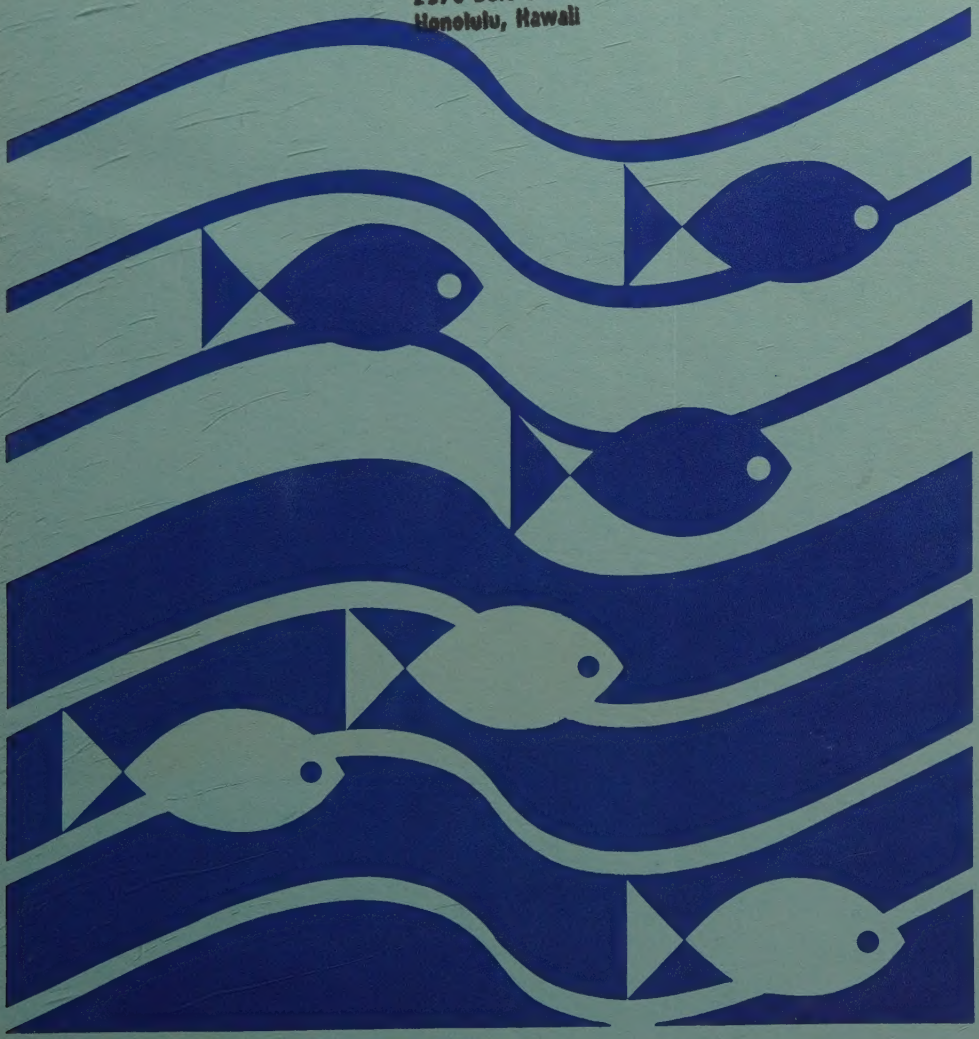
LIBRARY

Vol. 33, No. 2, 1988

DEPARTMENT OF THE INTERIOR
U.S. FISH AND WILDLIFE SERVICE

JUL 2 0 1988

National Marine Fisheries Service
2570 Dole Street
Honolulu, Hawaii



Fisheries Review

Jeff Humphrey, Editor

Office of Information Transfer
Editorial Section
U.S. Fish and Wildlife Service
1025 Pennock Place
Fort Collins, Colorado 80524

Fisheries Review is intended to furnish fishery biologists with abstracts of current literature in sport, fishery research, and management.

One volume, consisting of four numbers, is issued each year. Each number contains separate Author, Geographic, Taxonomic, and Subject indexes, and a list of publications screened. Authors who publish in journals not screened for *Fisheries Review*, and who would like their publications included, should submit abstracts to the Editor.

The U.S. Fish and Wildlife Service assumes no responsibility for the accuracy of material from outside sources, and can only supply copies of articles written and published by the U.S. Fish and Wildlife Service.

Fisheries Review

CONTENTS

CULTURE AND PROPAGATION

General Fish Culture..... 1
Trout and Salmon Culture..... 2
Warmwater Culture..... 5
Mariculture..... 9
Feeds, Feeding, and Nutrition..... 10
Aquariums..... 10
Miscellaneous Culture Techniques and Equipment..... 11

LIMNOLOGY AND OCEANOGRAPHY

General..... 12
Physical..... 12

MORPHOLOGY, PHYSIOLOGY, GENETICS AND BEHAVIOR

Morphology..... 12
Physiology..... 19
Genetics, Variation Studies, Hybridization..... 44
Behavior..... 48

NATURAL HISTORY

Life Histories - General Works..... 56
Population Studies - Production, Standing Crop, Recruitment. 58
Spawning Habits and Movements, Sex Ratios, Fecundity, etc... 60
Movements, Seasonal and Depth Distribution, etc..... 61
Foods and Feeding..... 62
Age and Growth..... 64
Geographical Distribution, Fish surveys, etc..... 66
Abundance, Factors of; Survival and Mortality..... 69
Identification, Keys, Classification..... 70

PARASITES AND DISEASES

General..... 73
Bacterial..... 74
Fungal..... 77
Protozoan..... 77
Viral..... 78
Other..... 79

POLLUTION AND TOXICOLOGY

Pollution..... 83
Toxicology; Bioassays..... 87

RESEARCH AND MANAGEMENT

General..... 97
Administration and Planning..... 100
Habitat Alterations..... 100
Harvest, Creel Census, etc..... 101
Fish Control and Removal..... 102
Marking and Tagging..... 102
Stocking and Introductions..... 103
Fishing Gear and Techniques..... 103
Fishways, Fish Passage Through Dams, etc..... 104
Mathematical, Statistical Methods and Modeling..... 104
Lake Management and Research..... 109
River and Stream Management and Research..... 113
Farm Pond and Small Impoundment Management and Research..... 118
Large Impoundment Management and Research..... 118
Estuary Management and Research..... 124
Marine Management and Research..... 124
Utilization of Fishery Products..... 132
Miscellaneous Techniques and Equipment..... 133
Reviews, Bibliographies, etc..... 134
Miscellaneous..... 134

AUTHOR INDEX (Salmon)..... 135
GEOGRAPHIC INDEX (Yellow)..... 169
SYSTEMATIC INDEX (Blue)..... 177

AVAILABILITY OF REPRINTS AND PUBLICATIONS

Fisheries Review does not distribute any of the papers cited herein, nor can the editor of *Fisheries Review* obtain copies of these papers for anyone. A reprint of an article published in a journal may be available from the author, from the organization with which the author is affiliated, or from the publisher of the journal in which the article appeared. When an author's address is known, it is shown in square brackets following the citation. Addresses of most wildlife organizations can be obtained from the *Conservation Directory*, an annual publication available from the National Wildlife Federation, 1412 16th St., N.W., Washington, D.C. 20036. This directory lists more than 900 agencies and organizations concerned with natural resources use.

Camera-ready copy for this issue of *Fisheries Review* has been generated by computer programs developed by the Data Base Section, U.S. Fish and Wildlife Service, Office of Information Transfer, 1025 Pennock Place, Fort Collins, CO 80524.

GENERAL FISH CULTURE

88-001192 Ackefors, Hans. PROSPECTS AND LIMITATIONS FOR AQUACULTURE IN SCANDINAVIA. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 5-16. 1986. FR 33(2)
[Dep. Zool., Univ. Stockholm, S-106 91 Stockholm, Sweden]

88-001193 Avnimelech, Yoram and Malka Lacher. ON THE ROLE OF SOIL IN THE MAINTENANCE OF FISH PONDS' FERTILITY. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 251-254. 1980. FR 33(2)
[Fac. Agric. Eng., Technion Israel Inst. Technol., Haifa, Israel]

88-001194 Banerjee, R. K. and K. V. Srinivasan. RECYCLING-REUSE OF PENICILLIN MYCELIUM AS FISH POND MANURE. *Biol. Wastes* 23(2):107-116. 1988. FR 33(2)
[Dep. Chem., Univ. Patna, Patna-5, India]

88-001195 Beem, Marley D.; Glen E. Gebhart and O. Eugene Maughan. WINTER POLYCULTURE OF CHANNEL CATFISH AND RAINBOW TROUT IN CAGES. *Prog. Fish-Cult.* 50(1):49-51. 1988. FR 33(2)
[Dep. Wildl. & Fish. Sci., S.D. State Univ., Brookings 57007] *Salmo gairdneri* and *Ictalurus punctatus*.

88-001196 Camacho, Arsenio S. AN OVERVIEW OF THE PHILIPPINE FISHPOND INDUSTRY. *Asian Aquacult. (SEAFDEC)* 9(2):9-11. 1987. FR 33(2)
[AQD Binangonan Freshwater Stn., Luzon, Philippines] *Chanos chanos*.

88-001197 Enell, Magnus. ENVIRONMENTAL IMPACT OF CAGE FISH FARMING. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 106. 1986. Abstract only. FR 33(2)
[Inst. Limnol., Univ. Lund, P.O. Box 65, S-221 00 Lund, Sweden]

88-001198 Hirayama, K.; H. Mizuma and Y. Mizue. THE ACCUMULATION OF DISSOLVED ORGANIC SUBSTANCES IN CLOSED RECIRCULATION CULTURE SYSTEMS. *Aquacult. Eng.* 7(2):73-87. 1988. FR 33(2)
[Fac. Fish., Nagasaki Univ., 852 Bunkyomachi Nagasaki, Nagasaki, Japan]

88-001199 Lindqvist, Ossi V. and Terho Roponen. POND REARING OF FISH FINGERLINGS. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 112. 1986. Abstract only. FR 33(2)
[Dep. Appl. Zool., Univ. Kuopio, P.O. Box 6, SF-70211 Kuopio, Finland] *Coregonus lavaretus, Esox lucius, Thymallus thymallus*, and *Stizostedion lucioperca*.

88-001200 Lucchetti, Gino L. and Gerard A. Gray. WATER REUSE SYSTEMS: A REVIEW OF PRINCIPAL COMPONENTS. *Prog. Fish-Cult.* 50(1):1-6. 1988. FR 33(2)
[Tulalip Fish. Dep., 3901 Totem Beach Rd., Marysville, WA 98270]

88-001201 Manthe, Don P.; Ronald F. Malone and Sunil Kumar. SUBMERGED ROCK FILTER EVALUATION USING AN OXYGEN CONSUMPTION CRITERION FOR CLOSED RECIRCULATING SYSTEMS. *Aquacult. Eng.* 7(2):97-111. 1988. FR 33(2)
[Greeley & Hansen Eng., 426 N. 44th St., Suite 400, Phoenix, AZ 85008]

88-001202 Meade, James W. A BIOASSAY FOR PRODUCTION CAPACITY ASSESSMENT. *Aquacult. Eng.* 7(2):139-146. 1988. FR 33(2)
[Natl. Fish. Res. & Dev. Lab., U.S. Fish & Wildl. Serv., RD No. 4, Box 63, Wellsboro, PA 16901]

GENERAL FISH CULTURE (CONTINUED)

88-001203 Paller, Michael H. and William M. Lewis. EFFECTS OF DIET ON GROWTH DEPENSATION AND CANNIBALISM AMONG INTENSIVELY CULTURED LARVAL STRIPED BASS. *Prog. Fish-Cult.* 49(4):270-275. 1987. FR 33(2)
[Environ. Chem. Sci., Inc., P.O. Box 1393, Aiken, SC 29801] *Morone saxatilis.*

88-001204 Ravagnan, Gino. ECONOMIC AND MANAGEMENT PROBLEMS IN AQUACULTURE. *Riv. Ital. Piscic. Ittiop.* 22(2):51-52, 55-60. 1987. In English. FR 33(2)
[Via Euganea, 29-Padova, Italy]

88-001205 Rottmann, R. W. and J. V. Shireman. HATCHING JAR THAT IS INEXPENSIVE AND SIMPLE TO ASSEMBLE. *Prog. Fish-Cult.* 50(1):57-58. 1988. FR 33(2)
[Dep. Fish. & Aquacult., Inst. Food & Agric. Sci., Univ. Fla., Gainesville 32606]

88-001206 Shim, K. F.; T. J. Lam and L. Landesman. CULTURE OF THE DWARF GOURAMI *COLISA LALIA* IN SINGAPORE. *J. World Aquacult. Soc.* 18(3):203-206. 1987. FR 33(2)
[Dep. Zool., Natl. Univ. Singapore, Lower Kent Ridge Rd., Singapore 0511]

TROUT AND SALMON CULTURE

88-001207 Adachi, M. [CONSTRUCTION OF SALMON HATCHERY IN CHILE.] *Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 1-5. 1986. In Japanese. FR 33(2)

88-001208 Akai, A. [ADULT RETURN OF MARKED MASU SALMON, *ONCORHYNCHUS MASOU, RELEASED AS SMOLTS INTO THE SHARI RIVER.] Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 37-42. 1986. In Japanese. FR 33(2)

88-001209 Bromage, Niall and James Duston. THE CONTROL OF SPAWNING IN THE RAINBOW TROUT (*SALMO GAIRDNERI* RICHARDSON) USING PHOTOPERIOD TECHNIQUES. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 26-35. 1986. FR 33(2)
[Fish Cult., Dep. Molecular Sci., Aston Univ., Birmingham B4 7ET, England]

88-001210 Cheng, Kimberly M.; Ian M. McCallum; Robert I. McKay and B. E. March. A COMPARISON OF SURVIVAL AND GROWTH OF TWO STRAINS OF CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*) AND THEIR CROSSES REARED IN CONFINEMENT. *Aquaculture* 67(3/4):301-311. 1987. FR 33(2)
[March: Dep. Anim. Sci., Univ. British Columbia, Vancouver, BC, Canada V6T 2A2]

88-001211 Dwyer, William P. and Robert G. Piper. ATLANTIC SALMON GROWTH EFFICIENCY AS AFFECTED BY TEMPERATURE. *Prog. Fish-Cult.* 49(1):57-59. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Fish Technol. Cent., 4050 Bridger Canyon Rd., Bozeman, MT 59715] *Salmo salar.*

88-001212 Eriksson, Lars-Ove. PROSPECTS OF A ONE-YEAR REARING CYCLE FOR ARCTIC CHAR. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 107. 1986. Abstract only. FR 33(2)
[Dep. Ecol. Zool., Univ. Umea, S-901 87 Umea, Sweden] *Salvelinus alpinus.*

TROUT AND SALMON CULTURE (CONTINUED)

88-001213 Eriksson, Lars-Ove. CIRCADIAN AND CIRCANNUAL RHYTHMS IN SALMONIDS: POSSIBILITIES OF MODULATION BY EXTERNAL CUES. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 106. 1986. Abstract only. FR 33(2)
[Swedish Salmon Res. Inst., S-810 70 Alvkarleby, Sweden]

88-001214 Fuss, Howard and Paul Seidel. HATCHERY INCUBATION TECHNIQUES AT WDF HATCHERIES. *Wash. Dep. Fish. Tech. Rep.* No. 100. 86p. 1987. FR 33(2)

88-001215 Ghittino, P. and C. Ghittino. [UNAVOIDABLE UPDATING ON TROUT FLESH PIGMENTATION.] *Riv. Ital. Piscic. Ittiop.* 22(3):83-84, 87-90. 1987. In Italian with English summ. FR 33(2)
[Cent. Studio Malattie Pesci, Inst. Zooprofilattico Sper. Piedmonte, Liguria & Valle d'Aosta, Via Bologna, 148, 10154 Torino, Italy] *Salmo gairdneri.*

88-001216 Groman, David B. ACCELERATED GROWTH AND PRODUCTION OF ZERO AGED ATLANTIC SALMON (*SALMO SALAR* L.) SMOLTS IN ICELAND. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 109. 1986. Abstract only. FR 33(2)
[Inst. Exp. Pathol., Reykjavik, Iceland]

88-001217 Groman, David B. and Sigurdur Helgason. SALMON RANCHING AND SMOLT PRODUCTION FACILITIES IN ICELAND, 1984. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 109. 1986. Abstract only. FR 33(2)
[Inst. Exp. Pathol., Reykjavik, Iceland] *Salmonidae.*

88-001218 Gulbrandsen, K. E. and F. Utne. EXPERIMENT WITH FISH OILS MADE FROM CAPELIN IN DRY SALMON FEED FOR USE AT LOW SEAWATER TEMPERATURES. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 110. 1986. Abstract only. FR 33(2)
[Norwegian Herring Oil & Meal Indust. Res. Inst., N-5033 Fyllingsdalen, Norway] *Salmo salar.*

88-001219 Hansen, Lars P. and Bror Jonsson. SALMON RANCHING EXPERIMENTS IN THE RIVER IMSA: EFFECTS OF DAY AND NIGHT RELEASE OF SEA-WATER ADAPTATION ON RECAPTURE-RATES OF ADULTS. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 47-51. 1986. FR 33(2)
[Dir. Nat. Manage., Fish Res. Div., Tungasletta 2, N-7047 Trondheim, Norway] *Salmo salar.*

88-001220 Hatori, T. and M. Fujise. [SMOLT PRODUCTION OF SOCKEYE SALMON, *ONCORHYNCHUS NERKA* AT THE NIJIBETSU HATCHERY.] *Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 43-46. 1986. In Japanese. FR 33(2)

88-001221 Isaksson, Arni and Sumarlidi Oskarsson. RETURNS OF COMPARABLE MICROTAGGED ATLANTIC SALMON (*SALMO SALAR* L.) OF KOLLAFJORDUR STOCK TO THREE SALMON RANCHING FACILITIES. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 58-68. 1986. FR 33(2)
[Inst. Freshwater Fish., P.O. Box 5252, 125 Reykjavik, Iceland]

88-001222 Kane, Thomas R. LENGTH-WEIGHT RELATIONSHIP OF HATCHERY-REARED ATLANTIC SALMON. *Prog. Fish-Cult.* 50(1):28-30. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Northeast Fish. Cent., P.O. Box 75, Lamar, PA 16848] *Salmo salar.*

88-001223 Kindschi, Greg A.; Donald A. Edsall; Ray A. Phillips and Steven H. Severson. PERFORMANCE OF LAKE TROUT FED SELECTED STARTER DIETS. *Prog. Fish-Cult.* 49(4):299-301. 1987. FR 33(2)
[Bozeman Fish Tech. Cent., 4050 Bridger Canyon Rd., Bozeman, MT 59715] *Salvelinus namaycush.*

TROUT AND SALMON CULTURE (CONTINUED)

88-001224 Matsushima, Y. [INVITATION TO SALMON HATCHERIES IN SAKHALIN ISLAND, USSR.] *Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 6-25. 1986. In Japanese. FR 33(2)

88-001225 Melotti, P.; G. Giordani; A. Meluzzi and A. Vitali. [USE OF FLESH-FLY (*CALLIPHORA VOMITORIA* L.) LARVAE IN THE FEEDING OF TROUT (*SALMO GAIRDNERI* RICH.).] *Riv. Ital. Piscic. Ittiop.* 22(4):151-154. 1987. In Italian with English summ. FR 33(2)
[Inst. Zoocolt., Univ. Bologna, Via S. Giacomo 9, 40126, Bologna, Italy]

88-001226 Palva, Tuula K. and E. Tapio Palva. RESTRICTION SITE POLYMORPHISM IN MITOCHONDRIAL DNA OF RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, STOCKS IN FINLAND. *Aquaculture* 67(3/4):283-289. 1987. FR 33(2)
[Dep. Molecular Genet., Swedish Univ. Agric. Sci., Box 7003, S-750 07 Uppsala, Sweden]

88-001227 Poxton, M. G. THE USE OF HEATED WATER FOR SALMON HATCHERIES IN A COLD ENVIRONMENT - A CASE STUDY IN SCOTLAND. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 114. 1986. Abstract only. FR 33(2)
[Dep. Brewing Biol. Sci., Heriot-Watt Univ., Chambers STR, Edinburgh EH1 1HX, Scotland] *Salmo salar*.

88-001228 Redell, Lori A.; Donald V. Rottiers and Carol A. Lemm. LACK OF DIETARY EFFECTS OF THE TIMING OF SMOLTIFICATION IN ATLANTIC SALMON. *Prog. Fish-Cult.* 50(1):7-11. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. & Dev. Lab., Rural Delivery 4, Box 63, Wellsboro, PA 16901] *Salmo salar*.

88-001229 Ringo, Einar and Baard Nilsen. HATCHERY-REARED LANDLOCKED ARCTIC CHARR, *SALVELINUS ALPINUS* (L.), FROM LAKE TAKVATN, REARED IN FRESH AND SEA WATER. I. BIOCHEMICAL COMPOSITION OF FOOD, AND LIPID COMPOSITION OF FISH REARED IN FRESH WATER. *Aquaculture* 67(3/4):343-351. 1987. FR 33(2)
[Inst. Fish., Univ. Tromso, P.O. Box 3083, Guleng, N-9001 Tromso, Norway]

88-001230 Saunders, Richard L. THE THERMAL BIOLOGY OF ATLANTIC SALMON: INFLUENCE OF TEMPERATURE ON SALMON CULTURE WITH PARTICULAR REFERENCE TO CONSTRAINTS IMPOSED BY LOW TEMPERATURE. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 77-90. 1986. FR 33(2)
[Fish. & Environ. Sci., Fish. Res. Branch, Dep. Fish. & Oceans, Biol. Stn., St. Andrews, NB, Canada E0G 2X0] *Salmo salar*.

88-001231 Schreck, Julie A. and Christine M. Moffitt. PALATABILITY OF FEED CONTAINING DIFFERENT CONCENTRATIONS OF ERYTHROMYCIN THIOCYANATE TO CHINOOK SALMON. *Prog. Fish-Cult.* 49(4):241-247. 1987. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, Univ. Idaho, Moscow 83843] *Oncorhynchus tshawytscha*.

88-001232 Smith, Robert R. METHODS OF CONTROLLING GROWTH OF STEELHEAD. *Prog. Fish-Cult.* 49(4):248-252. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Tunison Lab. Fish Nutr., Hagerman Field Stn., Hagerman, ID 83332] *Salmo gairdneri*.

88-001233 Soderberg, Richard W. and James W. Meade. EFFECTS OF REARING DENSITY ON GROWTH, SURVIVAL, AND FIN CONDITION OF ATLANTIC SALMON. *Prog. Fish-Cult.* 49(4):280-283. 1987. FR 33(2)

TROUT AND SALMON CULTURE (CONTINUED)

88-001233 CONTINUED
[Fish. Program-Biol. Dep., Mansfield Univ. Pa., Mansfield 16933] *Salmo salar*.

88-001234 Soderberg, Richard W.; Dennis S. Baxter and William F. Krise. GROWTH AND SURVIVAL OF FINGERLING LAKE TROUT REARED AT FOUR DENSITIES. *Prog. Fish-Cult.* 49(4):284-285. 1987. FR 33(2)
[Fish. Program-Biol. Dep., Mansfield Univ. Pa., Mansfield 16933] *Salmo salar*.

88-001235 Thorpe, John E. SOME BIOLOGICAL PROBLEMS IN RANCHING SALMONIDS. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 91-104. 1986. FR 33(2)
[Freshwater Fish. Lab., Pitlochry PH16 5LB, Scotland]

88-001236 Tokano, K. [CLEANING METHOD FOR SALMON REARING POND BY A VACUUM CLEANER - II.] *Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 47-51. 1986. In Japanese. FR 33(2)

88-001237 Urawa, S. and M. Kaeriyama. [SUMMARY OF ANADROMOUS SALMONID PROPAGATION IN THE NORTH PACIFIC RIM NATIONS.] *Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 26-35. 1986. In Japanese. FR 33(2)

88-001238 Vlgenes, Yngve and Gunnar Naevdal. CAUSES OF VARIATION IN VIABILITY OF REARED ATLANTIC SALMON BROODSTOCKS AND EGGS. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 115. 1986. Abstract only. FR 33(2)
[Inst. Mar. Res., Matre Aquacult. Stn., N-5198 Matredal, Norway] *Salmo salar* in Norway.

88-001239 Wallace, Jeff. THE DEVELOPMENT OF AQUACULTURE IN NORTHERN NORWAY: TEN YEARS OF EXPERIENCE. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 116. 1986. Abstract only. FR 33(2)
[Inst. Fish., Tromso Univ., P.O. Box 3083, N-9001 Tromso, Norway]

88-001240 Wallace, Jeff. POTENTIAL SPECIES IN SUB-ARCTIC AQUACULTURE. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 116. 1986. Abstract only. FR 33(2)
[Inst. Fish., Tromso Univ., P.O. Box 3083, N-9001 Tromso, Norway]

88-001241 Wiklund, Bo-Soren and Lars-Ove Eriksson. INDIVIDUAL GROWTH AND MATURATION PATTERNS OF FOUR NET-PEN REARED ARCTIC CHAR POPULATIONS. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 117. 1986. Abstract only. FR 33(2)
[Dep. Ecol. Zool., Univ. Umea, S-901 87 Umea, Sweden]

88-001242 Wisniewski, Rajmund Jan and Maria Planter. PHOSPHATE EXCHANGE BETWEEN SEDIMENTS AND THE NEAR-BOTTOM WATER IN RELATIONSHIP TO OXYGEN CONDITIONS IN A LAKE USED FOR INTENSIVE TROUT CAGE CULTURE. *Ekol. Pol.* 35(1):219-236. 1987. In English with Polish summ. FR 33(2)
[Cent. Invest. & Environ. Control, 1 Maja 13, 10-114 Olsztyn, Poland] *Salmo gairdneri*.

WARMWATER CULTURE

88-001243 Barat, S. and B. B. Jana. EFFECT OF FARMING MANAGEMENT ON THE DISTRIBUTION PATTERN OF AMMONIFICATION RATES, PROTEIN MINERALIZING AND AMMONIFYING BACTERIAL POPULATION IN EXPERIMENTAL CULTURE TANKS. *Bamidgeh*

WARMWATER CULTURE (CONTINUED)

88-001243 CONTINUED 39(4):120-132. 1987. FR 33(2)
[Fish. & Limnol. Lab., Dep. Zool., Univ. Kalyani, Kalyani 741235, West Bengal, India] *Clarius batrachus, Heteropneustes fossilis, Labeo rohito, Catla catla, Cirrhinus mrigala,* and *Cyprinus carpio.*

88-001244 Brandt, Thomas M. and Stephen A. Flickinger. FEEDING LARGEMOUTH BASS DURING COOL AND COLD WEATHER. *Prog. Fish-Cult.* 49(4):286-290. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish Hatchery & Tech. Cent., Rt. 1, Box 159-D, San Marcos, TX 78666] *Micropterus salmoides.*

88-001245 Camacho, Arsenio. AN OVERVIEW OF THE PHILIPPINE FISHPOND INDUSTRY. *Asian Aquacult. (SEAFDEC)* 9(3):9-12. 1987. FR 33(2)
[AQD Binangonan Freshwater Stn., Luzon, Philippines] *Chanos chanos.*

88-001246 Carlos, Manuel H. GROWTH AND SURVIVAL OF BIGHEAD CARP *(ARISTICHTHYS NOBILIS)* FRY FED AT DIFFERENT INTAKE LEVELS AND FEEDING FREQUENCIES. *Aquaculture* 68(3):267-276. 1988. FR 33(2)
[Fish Farming Cent., P.O. Box 9612, Jeddah 21432, Saudi Arabia]

88-001247 Engle, Carole R. OPTIMAL PRODUCT MIX FOR INTEGRATED LIVESTOCK-FISH CULTURE SYSTEMS ON LIMITED RESOURCE FARMS. *J. World Aquacult. Soc.* 18(3):137-147. 1987. FR 33(2)
[Dep. Econ., Auburn Univ., Montgomery, AL 36193-0401] *Aristichthys nobilis, Cyprinus carpio,* and *Pimephales promelas.*

88-001248 Farquhar, Bobby W. COMPARISON OF GRANULAR AND LIQUID INORGANIC FERTILIZERS USED IN STRIPED BASS AND SMALLMOUTH BASS REARING PONDS. *Prog. Fish-Cult.* 49(1):21-28. 1987. FR 33(2)
[Parks & Wildl. Dep., Fort Worth Res. Unit, 6200 Hatchery Rd., Fort Worth, TX 76114] *Morone saxatilis* and *Micropterus dolomieui.*

88-001249 Fott, Jan; Libor Pechar and Miroslava Prazakova. FISH AS A FACTOR CONTROLLING WATER QUALITY IN PONDS. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 255-261. 1980. FR 33(2)
[Dep. Hydrobiol., Charles Univ., Vinicna 7, 128 44 Prague 2, Czechoslovakia] *Cyprinus carpio* and *Coregonus lavaretus maraena.*

88-001250 Garcia, Luis Maria B.; Clarissa L. Marte and Vicente S. Travina. A COLLECTING GEAR FOR NATURALLY-SPAWNED MILKFISH (*CHANOS CHANOS* FORSSKAL) EGGS IN CIRCULAR FLOATING NET CAGES. *Aquaculture* 68(1):83-86. 1988. FR 33(2)
[Aquacult. Dep., Southeast Asian Fish. Dev. Cent. (SEAFDEC), Tigbauan, Iloilo, Philippines]

88-001251 Greenland, Donald C.; Scott H. Newton and Ray F. Faucette, Jr. EFFECTS OF CAGE ENCRUSTATION BY THE BRYOZOAN *PLUMATELLA CASMIANA* ON PRODUCTION OF CHANNEL CATFISH. *Prog. Fish-Cult.* 50(1):42-45. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., 463 West St., Amherst, MA 01002] *Ictalurus punctatus.*

88-001252 Heinen, John M.; H. Randall Robinette; Louis R. D'Abramo and Robert L. Busch. POLYCULTURE OF FRESHWATER PRAWNS *MACROBRACHIUM ROSENBERGII* AND CHANNEL CATFISH FINGERLINGS *ICTALURUS PUNCTATUS* IN 1985 IN MISSISSIPPI. *J. World Aquacult. Soc.* 18(3):190-195. 1987. FR 33(2)
[Dep. Wildl. & Fish., P.O. Drawer LW, Miss. State Univ., Mississippi 39762]

WARMWATER CULTURE (CONTINUED)

88-001253 Kindschi, Greg A. EFFORTS TO PREVENT EARLY MORTALITY OF WALLEYE FRY REARED INTENSIVELY. *U.S. Fish Wildl. Serv. Bozeman Inf. Leafl.* No. 41. 23p. 1987. FR 33(2)
[Fish. Tech. Cent., U.S. Fish. & Wildl. Serv., 4050 Bridger Canyon Rd., Bozeman, MT 59715] *Stizostedion vitreum.*

88-001254 Kingsley, John B. LEGAL CONSTRAINTS TO TILAPIA CULTURE IN THE UNITED STATES. *J. World Aquacult. Soc.* 18(3):201-203. 1987. FR 33(2)
[Agric. Res. Branch, Tenn. Valley Auth., F137 NFDC, Muscle Shoals, AL 35660]

88-001255 McGinty, Andrew S. EFFICACY OF MIXED-SPECIES COMMUNAL REARING AS A METHOD FOR PERFORMANCE TESTING OF TILAPIAS. *Prog. Fish-Cult.* 49(1):17-20. 1987. FR 33(2)
[Dep. Mar. Sci., Univ. Puerto Rico, Mayaguez 00708] *Tilapia aurea, T. hornorum,* and *T. nilotica.*

88-001256 McIntyre, D. B.; F. J. Ward and G. M. Swanson. FACTORS AFFECTING CANNIBALISM BY POND-REARED JUVENILE WALLEYES. *Prog. Fish-Cult.* 49(4):264-269. 1987. FR 33(2)
[Dep. Zool., Univ. Manitoba, Winnipeg, MB, Canada R3T 2N2] *Stizostedion vitreum.*

88-001257 Merola, Nino and Francisco A. Pagan-Font. POND CULTURE OF THE AMAZON FISH TAMBAQUI, *COLOSSOMA MACROPOMUM*: A PILOT STUDY. *Aquacult. Eng.* 7(2):113-125. 1988. FR 33(2)
[FAO/ITA, c/o FAOR, C.P. 07-1058, Brasilia 70330, Brazil]

88-001258 Merola, Nino and J. Henrique De Souza. PRELIMINARY STUDIES ON THE CULTURE OF THE PACU, *COLOSSOMA MITREI*, IN FLOATING CAGES: EFFECT OF STOCKING DENSITY AND FEEDING RATE ON GROWTH PERFORMANCE. *Aquaculture* 68(3):243-248. 1988. FR 33(2)
[FAO/ITA, c/o FAOR, C.P. 07-1058, Brasilia 70.330, Brazil]

88-001259 Milstein, A.; G. Hulata and G. W. Wohlfarth. CANONICAL CORRELATION ANALYSIS OF RELATIONSHIPS BETWEEN MANAGEMENT INPUTS AND FISH GROWTH AND YIELDS IN POLYCULTURE. *Aquacult. Fish. Manage.* 19(1):13-24. 1988. FR 33(2)
[Fish & Aquacult. Res. Stn., Dor, MP Hof Hacarmel 30820, Israel] *Oreochromis, Cyprinus carpio,* and *Hypophthalmichthys molitrix.*

88-001260 Mires, Dan. AN IMPROVED POLYCULTURE MANAGEMENT FOR FRESHWATER PRAWN *MACROBRACHIUM ROSENBERGII* AND SEX INVERSED *OREOCHROMIS NILOTICUS*. *Bamidgeh* 39(4):109-119. 1987. FR 33(2)
[Ein Hamifratz D. N. Asherat 25210, Israel]

88-001261 Mishra, B. K.; A. K. Sahu and K. C. Pani. RECYCLING OF THE AQUATIC WEED, WATER HYACINTH, AND ANIMAL WASTES IN THE REARING OF INDIAN MAJOR CARPS. *Aquaculture* 68(1):59-64. 1988. FR 33(2)
[Cent. Inst. Freshwater Aquacult. (ICAR), Kausalyagang, Via: Bhubaneswar 751002, Orissa, India] *Catla catla, Labio rohita,* and *Cirrhinus mrigala.*

88-001262 Opuszynski, Karol. THE ROLE OF FISHERY MANAGEMENT IN COUNTERACTING EUTROPHICATION PROCESSES. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 263-269. 1980. FR 33(2)
[Dep. Pond Manage., Inland Fish Inst., Zabieniec, 05-500 Piaseczno, Poland] *Cyprinus carpio* and *Hypophthalmichthys molitrix.*

WARMWATER CULTURE (CONTINUED)

88-001263 Polling, L.; B. C. W. van der Waal and H. J. Schoonbee. IMPROVEMENTS IN THE LARGE SCALE ARTIFICIAL PROPAGATION OF THE SHARPTOOTH CATFISH, *CLARIUS GARIEPINUS* (BURCHELL), IN SOUTH AFRICA. *S. Afr. J. Anim. Sci.* 17(4):176-180. 1987. In English with Afrikaans summ. FR 33(2)
[Schoonbee: Dep. Zool., Rand Afrikaans Univ., P.O. Box 524, Johannesburg 2000, South Africa]

88-001264 Robinson, Edwin H. and William H. Daniels. SUBSTITUTION OF SOYBEAN MEAL WITH COTTONSEED MEAL IN POND FEEDS FOR CHANNEL CATFISH REARED AT LOW DENSITIES. *J. World Aquacult. Soc.* 18(2):101-106. 1987. FR 33(2)
[Delta Branch Exp. Stn., P.O. Box 197, Miss. State Univ., Stoneville 38776] *Ictalurus punctatus*.

88-001265 Rouse, David B.; G. O. El Naggar and M. A. Mulla. EFFECTS OF STOCKING SIZE AND DENSITY OF TILAPIA ON *MACROBRACHIUM ROSENBERGII* IN POLYCULTURE. *J. World Aquacult. Soc.* 18(2):57-60. 1987. FR 33(2)
[Dep. Fish & Allied Aquacult., Agric. Exp. Stn., Auburn Univ., Auburn, AL 36849] *Tilapia nilotica* and *T. aurea*.

88-001266 Sarig, S. FISHERIES AND FISH CULTURE IN ISRAEL IN 1985 AND 1986. *Bamidgeh* 39(4):95-108. 1987. FR 33(2)
[Lab. Res. Fish Dis., Nir-David, Israel]

88-001267 Schramm, Harold L., Jr.; Michael W. Collopy and Emmanuel A. Okrah. POTENTIAL PROBLEMS OF BIRD PREDATION FOR FISH CULTURE IN FLORIDA. *Prog. Fish-Cult.* 49(1):44-49. 1987. FR 33(2)
[Dep. Range & Wildl. Manage., Tex. Tech Univ., Box 4169, Lubbock 79409]

88-001268 Smith, Daniel Wilkins and Raul H. Piedrahita. THE RELATION BETWEEN PHYTOPLANKTON AND DISSOLVED OXYGEN IN FISH PONDS. *Aquaculture* 68(3):249-265. 1988. FR 33(2)
[Piedrahita: Cent. Technol. & Policy, Boston Univ., Boston, MA 02215]

88-001269 Sreenivasan, A. FISH PRODUCTION IN SOME HYPERTROPHIC ECOSYSTEMS IN SOUTH INDIA. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 271-277. 1980. FR 33(2)
[Dep. Fish., Admin. Office Bldgs., Madras 600 006, India] *Cyprinus carpio, Ctenopharyngodon idella,* and *Hypophthalmichthys molitrix*.

88-001270 Tommey, Harry; Michael Armstrong and Les Claybrook. THE CULTURE OF FINGERLING STRIPED BASS OVER BLUE CATFISH IN THE LAKE CATHERINE NURSERY POND. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 313. 1986. Abstract only. FR 33(2)
[Game & Fish Comm., Rt. 1, Box 477, Hot Springs, AR 71901] *Morone saxatilis* and *Ictalurus furcatus* in Arkansas.

88-001271 Watanabe, Takeshi; Toshio Takeuchi; Shuichi Satoh; Ki-Wei Wang; Toshiomi Ida; Masanao Yaguchi; Makoto Nakada; Takayuki Amano; Shigekane Yoshijima and Hiroshi Aoe. *Nippon Suisan Gakkaishi* 53(12):2217-2225. 1987. In English. FR 33(2)
[Lab. Fish Nutr., Tokyo Univ. Fish., Konan, Minato, Tokyo 108, Japan] *Cyprinus carpio*.

88-001272 Weisburd, Richard S. J.; E. A. Laws; D. D. Fox and R. H. York. EFFECTS OF SILVER CARP ON WATER QUALITY AND PRAWN PRODUCTION IN PRAWN PONDS. *Pac. Sci.* 39(4):386. 1988. Abstract Only. FR 33(2)
Hypophthalmichthys molitrix.

MARICULTURE

88-001273 Bolinches, J. and E. Egidius. HETEROTROPHIC BACTERIAL COMMUNITIES ASSOCIATED WITH THE REARING OF HALIBUT *HIPPOGLOSSUS HIPPOGLOSSUS* WITH SPECIAL REFERENCE TO *VIBRIO* SPP. *J. Appl. Ichthyol.* 3(4):165-173. 1987. In English with French and German summ. FR 33(2)
[Dep. Microbiol., Univ. Santiago, Santiago Compostela, Spain]

88-001274 Boyd, Claude E. and Harry V. Daniels. PERFORMANCE OF SURFACE AERATORS IN SALINE POND WATERS. *Prog. Fish-Cult.* 49(4):306-308. 1987. FR 33(2)
[Dep. Fish. & Allied Aquacult., Agric. Exp. Stn., Auburn Univ., Auburn, AL 36849]

88-001275 Colura, Robert L.; Gary C. Matlock and Anthony F. Maciorowski. ZOOPLANKTON ABUNDANCE IN UNSTOCKED MARICULTURE PONDS AT THREE SALINITIES. *Prog. Fish-Cult.* 49(4):253-259. 1987. FR 33(2)
[Parks & Wildl. Dep., Perry R. Bass Mar. Fish. Res. Stn., Star Rt., Box 385, Palacios, TX 77465]

88-001276 Eriksson, Torleif. PERFORMANCE OF RANCHED BALTIC SALMON IN A DELAYED RELEASE EXPERIMENT. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 108. 1986. Abstract only. FR 33(2)
[Dep. Ecol. Zool., Univ. Umea, S-901 87 Umea, Sweden] *Salmo salar.*

88-001277 Hakanson, Lars. FISH CAGE CULTURE - IN WHICH COASTAL ENVIRONMENT? *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 52-57. 1986. FR 33(2)
[Dep. Hydrol., Univ. Uppsala, S-752 20 Uppsala, Sweden]

88-001278 Nash, Gary; Ian G. Anderson; M. Shariff and Mariana Nor Shamsudin. BACTERIOSIS ASSOCIATED WITH EPIZOOTIC IN THE GIANT SEA PERCH, *LATES CALCARIFER*, AND THE ESTUARINE GROUPER, *EPINEPHELUS TAUVINA*, CAGE CULTURED IN MALAYSIA. *Aquaculture* 67(1-2):105-111. 1987. FR 33(2)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

88-001279 Sarusic, Gordana and Darko Lisac. THE "BROKEN NECK SYNDROME" IN SEA BASS (*DICENTRARCHUS LABRAX* L.). *Aquaculture* 67(1-2):101-104. 1987. FR 33(2)
[CENMAR Ltd., 57 000 Zadar, Yugoslavia]

88-001280 Tucker, John W., Jr. SNOOK AND TARPON SNOOK CULTURE AND PRELIMINARY EVALUATION FOR COMMERCIAL FARMING. *Prog. Fish-Cult.* 49(1):49-57. 1987. FR 33(2)
[Harbor Branch Oceanogr. Inst., 5600 Old Dixie Hwy., Fort Pierce, FL 33450]

88-001281 Waiwood, K. G. A TRANSPORTABLE SEAWATER HOLDING FACILITY FOR RESEARCH VESSELS. *Aquacult. Eng.* 7(2):127-138. 1988. FR 33(2)
[Dep. Fish. & Oceans, Biol. Stn., St. Andrews, NB, Canada E0G 2X0] *Melanogrammus aeglefinus.*

88-001282 Watson, Lauren C. SPAWNING AND HATCHING ATLANTIC TOMCOD. *Prog. Fish-Cult.* 49(1):69-71. 1987. FR 33(2)
[Rural Delivery 1, Box 159, Newport, NY 13416] *Microgadus tomcod.*

FEEDS, FEEDING, AND NUTRITION

88-001283 Danulat, Eva. DIGESTIBILITY OF CHITIN IN COD, *GADUS MORHUA*, IN VIVO. *Helgol. Meeresunter.* 41(4):425-436. 1987. FR 33(2)
[Univ. British Columbia, Dep. Zool., 6270 University Blvd., Vancouver, BC, Canada V6T 2A9]

88-001284 Garatun-Tjeldsto, Oddvard; Jan Thomassen; Leiv Klungsoyr; Ingegjerd Opstad; Bernt Strand and Ingvar Huse. ARTIFICIAL START-FEED FOR COD LARVAE (*GADUS MORHUA* L.) BASED UPON COD ROE. *Sarsia* 72(3-4):373-374. 1987. FR 33(2)
[Dep. Biochem., Univ. Bergen, N-5009 Bergen, Norway]

88-001285 Hidalgo, F.; M. Kentouri and P. Divanach. [THE UTILISATION OF A SELF-FEEDER AS A TOOL FOR THE NUTRITIONAL STUDY OF SEA BASS, *DICENTRARCHUS LABRAX* - PRELIMINARY RESULTS WITH METHIONINE.] *Aquaculture* 68(2):177-190. 1988. In French with English summ. FR 33(2)
[Lab. Physiol. Anim., Fac. Sci., Grenada, Spain]

88-001286 MacMichael, Gregory J.; Lewis R. Brown and Cornell M. Ladner. AN OLIGOCHAETE AS A POTENTIAL FOOD SOURCE FOR FISH IN AQUACULTURE. *Prog. Fish-Cult.* 50(1):31-35. 1988. FR 33(2)
[Techne Inc., 3700 Brunswick Pike, Princeton, NJ 08540] *Poecilia reticulata* and *Notemigonus crysoleucas*.

88-001287 Martinez-Palacios, Carlos A.; Reyna Galvan Cruz; Miguel A. Olvera Novoa and Cristina Chavez-Martinez. THE USE OF JACK BEAN (*CANAVALIA ENSIFORMIS* LEGUMINOSAE) MEAL AS A PARTIAL SUBSTITUTE FOR FISH MEAL IN DIETS FOR TILAPIA (*OREOCHROMIS MOSSAMBICUS* CICHLIDAE). *Aquaculture* 68(2):165-175. 1988. FR 33(2)
[Cent. Invest. Estud. Avanzados I.P.N., Unidad Merida, A.P. 73, Cordemex, 97310 Merida, Yucatan, Mexico]

88-001288 Polling, L.; H. J. Schoonbee; J. F. Prinsloo and A. J. B. Wiid. THE EVALUATION OF LIVE FEED IN THE EARLY LARVAL GROWTH OF THE SHARPTOOTH CATFISH *CLARIAS GARIEPINUS* (BURCHELL). *Water SA* 14(1):19-24. 1988. FR 33(2)
[Prinsloo: Limnol. Res. Unit, Univ. North, Private Bag X1106, Sovenga 0727, South Africa]

88-001289 Tucker, John W., Jr. GROWTH OF JUVENILE SPOTTED SEATROUT ON DRY FEEDS. *Prog. Fish-Cult.* 50(1):39-41. 1988. FR 33(2)
[Harbor Branch Oceanogr. Inst., 5600 Old Dixie Hwy., Fort Pierce, FL 34946] *Cynoscion nebulosus*.

AQUARIUMS

88-001290 Abe, Y.; T. Nagahama; H. Uchida; H. Takahashi and Y. Saito. BREEDING THE TOKYO BITTERLING *TANAKIA TANAGO* AT UENO ZOO AQUARIUM. *Int. Zoo Yearb.* No. 26. p. 62-64. 1987. FR 33(2)
[Aquarium, Ueno Zool. Gardens, Ueno Park, Taito-ku, Tokyo, 110 Japan]

88-001291 Jauch, Dieter. BREEDING THE COMMON FOUREYED FISH *ANABLEPS ANABLEPS* AT THE STUTTGART ZOO. *Int. Zoo Yearb.* No. 26. p. 64-70. 1987. FR 33(2)
[Zool.-Bot. Garten Wilhelms, Postfach 501227, 7000 Stuttgart 50, West Germany]

AQUARIUMS (CONTINUED)

88-001292 Marliave, Jeffrey B. THE LIFE HISTORY AND CAPTIVE REPRODUCTION OF THE WOLF-EEL *ANARRHICHTHYS OCELLATUS* AT THE VANCOUVER PUBLIC AQUARIUM. *Int. Zoo Yearb.* No. 26. p. 70-81. 1987. FR 33(2)
[Vancouver Public Aquarium, P.O. Box 3232, Vancouver, BC, Canada V6B 3X8]

88-001293 Zukal, Ruda. BREEDING *PRIONOBRAMA FILIGERA*, THE GLASS BLOODFIN. *Trop. Fish Hobbyist* 36(7):50-52. 1988. FR 33(2)

MISCELLANEOUS CULTURE TECHNIQUES AND EQUIPMENT

88-001294 Brandt, T. M. and J. C. Morrow. DRAIN MODIFICATIONS AND A CROWDING NET FOR CIRCULAR TANKS. *Prog. Fish-Cult.* 49(1):73-75. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish Hatchery & Technol. Cent., Rt. 1, Box 159-D, San Marcos, TX 78666]

88-001295 Greenland, Donald C. MINIMUM SIZE OF CHANNEL CATFISH RETAINED BY 2.5 X 1.3-CM PLASTIC-COATED WIRE MESH. *Prog. Fish-Cult.* 49(1):72. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Fish Farming Exp. Stn., Stuttgart, AR 72160] *Ictalurus punctatus*.

88-001296 Guillou, A. and J. De la Noue. USE OF STRONTIUM AS A NUTRITIONAL MARKER FOR FARM-REARED BROOK TROUT. *Prog. Fish-Cult.* 49(1):34-39. 1987. FR 33(2)
[Cent. Rech. & Nutr., Pavillon Comtois, Univ. Laval, Sainte-Foy, PQ, Canada G1K 7P4] *Salvelinus fontinalis*.

88-001297 Hawke, S. P. and M. S. Field-Dodgson. SIMPLE LOW-COST CIRCULAR PONDS. *Prog. Fish-Cult.* 49(1):75-76. 1987. FR 33(2)
[Fish. Res. Div., Minist. Agric. & Fish., P.O. Box 8324, Christchurch, New Zealand]

88-001298 LaBomascus, D. C.; E. H. Robinson and T. L. Linton. USE OF WATER CONDITIONERS IN WATER-RECIRCULATION SYSTEMS. *Prog. Fish-Cult.* 49(1):64-65. 1987. FR 33(2)
[Dep. Wildl. & Fish. Sci., Tex. A&M Univ., College Station 77843]

88-001299 Lucchetti, Gino L. and Gerard A. Gray. PROTOTYPE WATER REUSE SYSTEM. *Prog. Fish-Cult.* 50(1):46-49. 1988. FR 33(2)
[Tulalip Fish. Dep., 3901 Totem Beach Rd., Marysville, WA 98270] *Ptychochellus oregonensis*.

88-001300 Moore, Alan A. SHORT-TERM STORAGE AND CRYOPRESERVATION OF WALLEYE SEMEN. *Prog. Fish-Cult.* 49(1):40-43. 1987. FR 33(2)
[Dep. Nat. Resour., Rathbun Fish Hatchery, R.R. 2, Moravia, IA 52571] *Stizostedion vitreum vitreum*.

88-001301 Rottmann, R. W.; J. V. Shireman; C. C. Starling and W. H. Revels. ELIMINATING ADHESIVENESS OF WHITE BASS EGGS FOR THE HATCHERY PRODUCTION OF HYBRID STRIPED BASS. *Prog. Fish-Cult.* 50(1):55-57. 1988. FR 33(2)
[Dep. Fish. & Aquacult., Inst. Food & Agric. Sci., Univ. Fla., Gainesville 32606] *Morone saxatilis*, and *M. chrysops*.

GENERAL LIMNOLOGY AND OCEANOGRAPHY

88-001302 Barica, J. and L. R. Muir, editors. HYPERTROPHIC ECOSYSTEMS: S.I.L. WORKSHOP ON HYPERTROPHIC ECOSYSTEMS HELD AT VAXJO, SEPTEMBER 10-14, 1979. *Dr. W. Junk Publ.* 348p. 1980. FR 33(2)
Selected chapters indexed in this issue of *Fisheries Review.*

88-001303 Biro, P. and L. Voros. RELATIONSHIP BETWEEN THE YIELD OF BREAM, *ABRAMIS BRAMA* L., CHLOROPHYLL-A CONCENTRATION AND SHORELENGTH: WATER AREA RATIO IN LAKE BALATON, HUNGARY. *Aquacult. Fish. Manage.* 19(1):53-61. 1988. FR 33(2)
[Balaton Limnol. Res. Inst., Hungarian Acad. Sci., H-8237 Tihany, Hungary]

88-001304 Hirano, Toshiyuki. STUDY ON THE OCEANIC ENVIRONMENTS RELATING TO MARINE LIVING RESOURCES. *J. Oceanogr. Soc. Jpn.* 42(6):490-501. 1987. In Japanese with English summ. Abstract only. From Deep-Sea Res. Part B Oceanogr. Lit. Rev. 34(12):1083. 1987. FR 33(2)
[Fac. Mar. Sci. & Tech., Tokai Univ., 3-20-1 Orido, Shimizu, Shizuoko 424, Japan]

PHYSICAL LIMNOLOGY AND OCEANOGRAPHY

88-001305 Johnson, Steven L. THE EFFECTS OF THE 1983 EL NINO ON OREGON'S COHO (*ONCORHYNCHUS KISUTCH*) AND CHINOOK (*O. TSHAWYTSCHA*) SALMON. *Fish. Res.* 6(2):105-123. 1988. FR 33(2)
[Dep. Fish & Wildl., Res. & Dev. Sect., 303 Ext. Hall, Oreg. State Univ., Corvallis 97331]

MORPHOLOGY

88-001306 Badcock, Julian and Teresa M. H. Araujo. ON THE SIGNIFICANCE OF VARIATION IN A WARM WATER COSMOPOLITAN SPECIES, NOMINALLY *CERATOSCOPELUS WARMINGII* (PISCES, MYCTOPHIDAE). *Bull. Mar. Sci.* 42(1):16-43. 1988. FR 33(2)
[17 High St., Boxsall, Nr. Matlock, Derbyshire, 4D 2AS, England] *C. townsendi.*

88-001307 Bagliniere, J. L. and H. Le Louarn. [SCALES CHARACTERISTICS OF THE MAIN FRESHWATER FISH SPECIES IN FRANCH.] *Bull. Fr. Peche Piscic.* 306(3):2-39. 1987. In French with English summ. FR 33(2)
[Stn. Physiol. & Ecol. Poissons, I.N.R.A., 65, Route St-Brieuc - 35042 Rennes Cedex, France]

88-001308 Barber, W. E. and R. J. Walker. CIRCULI SPACING AND ANNULUS FORMATION: IS THERE MORE THAN MEETS THE EYE? THE CASE FOR SOCKEYE SALMON, *ONCORHYNCHUS NERKA. J. Fish Biol.* 32(2):237-245. 1988. FR 33(2)
[School Fish. & Ocean Sci., Univ. Alaska, Fairbanks 99775-1780]

88-001309 Belanger, Scott E.; Donald S. Cherry; John J. Ney and David K. Whitehurst. DIFFERENTIATION OF FRESHWATER VERSUS SALTWATER STRIPED BASS BY ELEMENTAL SCALE ANALYSIS. *Trans. Am. Fish. Soc.* 116(4):594-600. 1987. FR 33(2)
[Dep. Biol., Univ. Southwest. La., Lafayette 70508] *Morone saxatilis.*

88-001310 Benecke, Norbert. [THE DETERMINATION OF THE BODY SIZE OF THE BREAM, *ABRAMIS BRAMA* (LINNAEUS, 1758) (OSTEICHTHYES, CYPRINIDAE), FROM MEASUREMENTS ON THE SKELETON. *Zool. Anz.* 219(3/4):167-181. 1987. In

MORPHOLOGY (CONTINUED)

88-001310 CONTINUED German with English summ. FR 33(2)
[P.F. 1310 Leipziger Str. 3-4, DDR-1086 Berlin, East Germany]

88-001311 Bergren, Joanne and William Raschi. THE SKELETAL STRUCTURE OF THE CAUDAL FIN IN *RHINICHTHYS ATRATULUS* AND *R. CATARACTAE*. *Proc. Pa. Acad. Sci.* 61(1):81-82. Abstract only. 1987. FR 33(2)
[Dep. Biol., Bucknell Univ., Lewisburg, PA 17837]

88-001312 Blum, Stanley D. PHYLOGENETIC RELATIONSHIPS AMONG THE CHAETODONTIDAE (PISCES: PERCIFORMES): A CLADISTIC INTERPRETATION OF OSTEOLOGY. *Pac. Sci.* 39(4):380-381. 1988. Abstract Only. FR 33(2)

88-001313 Bornbusch, Alan H. GILL RAKER MORPHOLOGIES OF ANCHOVIES (TELEOSTEI: ENGRAULIDAE) FROM THE RIO ORINOCO, VENEZUELA. *Copeia* 1988(1):174-182. 1988. FR 33(2)
[Dep. Zool., Duke Univ., Durham, NC 27706] *Anchoviella manamensis, A. brevirostris, A. guianensis, A. lepidentostole, Anchovia surinamensis, Anchoa spinifer, Lycengraulis batesii,* and *Pterengraulis atherinoides.*

88-001314 Brothers, Edward B. AGE AND GROWTH STUDIES ON TROPICAL FISHES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 119-136. 1979. FR 33(2)

88-001315 Bruno, D. W. and C. O. Fraser. A CASE OF REVERSAL IN THE COMMON DAB, *LIMANDA LIMANDA* (L.). *J. Fish Biol.* 32(3):483-484. 1988. FR 33(2)
[Dep. Agric. & Fish. Scotland, Mar. Lab., Victoria Rd., Torry, Aberdeen AB9 8DB, Scotland]

88-001316 Cabrera, J.; G. Martinez and A. Alfaro. AN ANOMALOUS SPECIMEN OF *RHAMDIA GUATEMALENSIS* (GUNTHER, 1864). *J. Fish Biol.* 32(2):309-310. 1988. FR 33(2)
[Escuela Cienc. Biol., Univ. Nacional, Heredia 3000, San Jose, Costa Rica]

88-001317 Campbell, Clay and William Raschi. THE OSTEOLOGY, MYOLOGY, AND TENDONS OF THE CAUDAL FIN OF *AMBLOPLITES RUPESTRIS*. *Proc. Pa. Acad. Sci.* 61(1):83-84. 1987. Abstract only. FR 33(2)
[Dep. Biol., Bucknell Univ., Lewisburg, PA 17837]

88-001318 Cataldi, E.; D. Crosetti; G. Conte; D. D'Ovidio and S. Cataudella. MORPHOLOGICAL CHANGES IN THE OESOPHAGEAL EPITHELIUM DURING ADAPTATION TO SALINITIES IN *OREOCHROMIS MOSSAMBICUS, O. NILOTICUS* AND THEIR HYBRID. *J. Fish Biol.* 32(2):191-196. 1988. FR 33(2)
[Dep. Biol. Anim. Uomo, Univ. Roma 'La Sapienza', Via Borelli 50, 00161 Rome, Italy]

88-001319 Coombs, Sheryl; John Janssen and Jacqueline F. Webb. DIVERSITY OF LATERAL LINE SYSTEMS: EVOLUTIONARY AND FUNCTIONAL CONSIDERATIONS. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 553-593. 1988. FR 33(2)
[Parmly Hearing Inst. & Dep. Biol., Loyola Univ., Chicago, IL 60626]

88-001320 Cousin, J. C. B. and F. Baudin Laurencin. HISTOLOGICAL ALTERATIONS OBSERVED IN TURBOT, *SCOPHTHALMUS MAXIMUS* L., FROM DAYS 15 TO 40 AFTER HATCHING. *Aquaculture* 67(1-2):218-220. 1987. FR 33(2)
[Dep. Cienc. Morfo-Biol., Univ. Rio Grande, Cx. P 474, 96200 Rio Grande, RS, Brazil]

MORPHOLOGY (CONTINUED)

88-001321 Crespo, Silvia; Roser Sala and Jesus Marlasca. DIFFERENT CELL TYPES IN THE GILL EPITHELIUM OF JUVENILE TURBOT *SCOPHTHALMUS MAXIMUS*. *Aquaculture* 67(1-2):216-217. 1987. FR 33(2)
[Lab. Biol., Fac. Vet., U.A.B., Bellaterra, Barcelona, Spain]

88-001322 Dimmick, Walter W. ULTRASTRUCTURE OF NORTH AMERICAN CYPRINID MAXILLARY BARBELS. *Copeia* 1988(1):72-80. 1988. FR 33(2)
[Dep. Zool., South. Ill. Univ., Carbondale 62901]

88-001323 Dorfman, Donald. ABERRANT ATLANTIC BONITO. *Underwater Nat.* 17(1):22. 1988. FR 33(2)
Sarda sarda.

88-001324 Es-Sounni, A. and M. Ather Ali. PHOTORECEPTOR ULTRASTRUCTURE OF LIGHT- AND DARK-ADAPTED YOUNG, PIGMENTED AND ADULT, SILVER EELS, *ANGUILLA ANGUILLA* (PISCES, TELEOSTEI). *Zool. Anz.* 219(3/4):230-238. 1987. In English. FR 33(2)
[Dep. Biol., Univ. Montreal, C.P. 6128, Succ. "A" Montreal, PQ, Canada H3C 3J7]

88-001325 Fernandez, H. R. C.; B. Mazey; B. Abdallah; M. Perle and A. Parekh. SPECTRAL PROPERTIES OF VISUAL PIGMENTS OF TELEOST FISH FROM THE GREAT LAKES BASIN. *Am. Zool.* 27(4):128A. 1987. Abstract only. FR 33(2)
[Wayne State Univ., Detroit, MI]

88-001326 Fine, Michael L. and Keith R. Pennypacker. HISTOCHEMICAL TYPING OF SONIC MUSCLE FROM THE OYSTER TOADFISH. *Copeia* 1988(1):130-134. 1988. FR 33(2)
[Dep. Biol., Va. Commonwealth Univ., Richmond 23284] *Opsanus tau*.

88-001327 Gambaryan, S. P. RENAL STRUCTURE OF STINGRAY *DASYATIS PASTINACA*. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):9-19. 1987. FR 33(2)
[Inst. Evol. Physiol. & Biochem., Acad. Sci. USSR, Leningrad, USSR]

88-001328 Gauldie, R. W. THE FINE STRUCTURE OF CHECK RINGS IN THE OTOLITH OF THE NEW ZEALAND ORANGE ROUGHY (*HOPLOSTETHUS ATLANTICUS*). *N.Z. J. Mar. Freshwater Res.* 21(2):267-274. 1987. FR 33(2)
[Fish. Res. Cent., P.O. Box 297, Wellington, New Zealand]

88-001329 Gauldie, R. W.; K. Mulligan and R. K. Thompson. THE OTOLITHS OF A CHIMAERA, THE NEW ZEALAND ELEPHANT FISH *CALLORHYNCHUS MILII*. *N.Z. J. Mar. Freshwater Res.* 21(2):275-280. 1987. FR 33(2)
[Fish. Res. Cent., P.O. Box 297, Wellington, New Zealand]

88-001330 Gobalet, K. W. LIGAMENTS AND JOINTS OF PARROTFISH JAWS (FAMILY SCARIDAE). *Am. Zool.* 27(4):21A. 1987. Abstract only. FR 33(2)
[Calif. State Coll., Bakersfield] *Scarus compressus, S. ghobbans, S. perrico, S. rubroviolaceus*, and *Nicholsina denticulata*.

88-001331 Gould, William R. FEATURES IN THE EARLY DEVELOPMENT OF BULL TROUT (*SALVELINUS CONFLUENTUS*). *Northwest Sci.* 61(4):264-268. 1987. FR 33(2)
[Coop. Fish. Res. Unit, Mont. State Univ., Bozeman 59717]

88-001332 Gunn, J. M.; M. J. McMurtry; J. N. Bowlby; J. M. Casselman and V. A. Liimatainen. SURVIVAL AND GROWTH OF STOCKED LAKE TROUT IN RELATION TO BODY SIZE, STOCKING SEASON, LAKE ACIDITY, AND BIOMASS OF COMPETITORS. *Trans. Am. Fish. Soc.* 116(4):618-627. 1987. FR 33(2)
[Ontario Minist. Nat. Resour., Fish. Community & Habitat Sect., Toronto, ON, Canada M7A 1W3] *Salvelinus namaycush* in Canada.

MORPHOLOGY (CONTINUED)

88-001333 Irish, F. J. THE MECHANICS OF FOOD PROCESSING AND TRANSPORT IN THE SERRASALMINE FISHES *PIARACTUS* AND *COLOSSOMA*. *Am. Zool.* 27(4):87A. 1987. Abstract only. FR 33(2)
[Harvard Univ., Cambridge, MA]

88-001334 Johangir, Z. M. G. S.; M. P. Schreibman and C. L. Forest. ULTRASTRUCTURE OF THE OLFACTORY ORGAN OF *XIPHOPHORUS MACULATUS*. *Am. Zool.* 27(4):26A. 1987. Abstract only. FR 33(2)
[Dep. Biol., Brooklyn Coll., CUNY, Brooklyn, NY]

88-001335 Kitoh, Junzoh; Sadao Kiyohara and Satoru Yamashita. FINE STRUCTURE OF TASTE BUDS IN THE MINNOW. *Nippon Suisan Gakkaishi* 53(11):1943-1950. 1987. In English. FR 33(2)
[Inst. Lab. Anim. Res., Nagoya Univ. School Med., Nagoya 466, Japan] *Pseudorasbora parva*.

88-001336 Kiyohara, S.; S. Yamashita; T. Marui and J. Caprio. CENTRAL PROJECTIONS OF MAJOR BRANCHES OF THE FACIAL TASTE NERVE IN THE JAPANESE SEA CATFISH. *Ann. N.Y. Acad. Sci.* 510:419-421. 1987. FR 33(2)
[Biol. Inst., Coll. Liberal Arts, Kagoshima Univ., Kohrimoto 1-21-30, Kagoshima 890, Japan] *Plotosus anguillaris*.

88-001337 Kjesbu, Olav Sigurd. STAGES OF OOCYTE MATURATION IN THE BLUE WHITING, *MICROMESISTIUS POUTASSOU* (RISSO, 1826) (GADIDAE). *Sarsia* 72(3-4):345-346. 1987. FR 33(2)
[Inst. Mar. Res., P.O. Box 2906, N-5024 Bergen, Norway]

88-001338 Laidley, C. W. and J. F. Leatherland. CIRCADIAN STUDIES OF PLASMA CORTISOL, THYROID HORMONE, PROTEIN, GLUCOSE AND ION CONCENTRATION, LIVER GLYCOGEN CONCENTRATION AND LIVER AND SPLEEN WEIGHT IN RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON. *Comp. Biochem. Physiol. A Comp. Physiol.* 89(3):495-502. 1988. FR 33(2)
[Dep. Zool., Group Advance. Fish Studies, Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-001339 Lee, Jonathan A. C. and Andrew R. Cossins. ADAPTATION OF INTESTINAL MORPHOLOGY IN THE TEMPERATURE-ACCLIMATED CARP, *CYPRINUS CARPIO* L. *Cell Tissue Res.* 251(2):451-456. 1988. FR 33(2)
[Cossins: Dep. Zool., Brownlow St., Univ. Liverpool, P.O. Box 147, Liverpool L69 3BX, England]

88-001340 Leipertz, Steven L. THE ROCKHEAD POACHER, *BOTHRAGONUS SWANI* (TELEOSTEI: AGONIDAE): SELECTED OSTEOLOGY, WITH COMMENTS ON PHYLOGENY. *Copeia* 1988(1):64-71. 1988. FR 33(2)
[Dep. Herpetol. & Ichthyol., Am. Mus. Nat. Hist., Central Park West at 79th St., New York, NY 10024]

88-001341 Maksimovich, A. A. NEUROSECRETORY HYPOTHALAMO-HYPOPHYSIAL SYSTEM OF TELEOSTEAN FISHES. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):92-106. 1987. FR 33(2)
[Inst. Mar. Biol., Far East Res. Cent., Acad. Sci. USSR, Vladivostok, USSR]

88-001342 McDowall, R. M. and K. Nakaya. MORPHOLOGICAL DIVERGENCE IN THE TWO SPECIES OF *APLOCHITON* JENYNS (SALMONIFORMES: APLOCHITONIDAE): A GENERALIST AND A SPECIALIST. *Copeia* 1988(1):233-236. 1988. FR 33(2)

MORPHOLOGY (CONTINUED)

88-001342 CONTINUED
[Fish. Res. Div., Minist. Agric. & Fish., P.O. Box 8324, Riccarton, Christchurch, New Zealand] *A. zebra* and *A. taeniatus:*

88-001343 Mugiya, Yasuo. PHASE DIFFERENCE BETWEEN CALCIFICATION AND ORGANIC MATRIX FORMATION IN THE DIURNAL GROWTH OF OTOLITHS IN THE RAINBOW TROUT, *SALMO GAIRDNERI*. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):395-401. 1987. FR 33(2)
[Fac. Fish., Hokkaido Univ., Minato-3, Hakodate, 041 Japan]

88-001344 Nishida, Mutsumi and Yasumasa Sawashi. GEOGRAPHIC DIFFERENCES IN THE NUMBER OF LONGITUDINAL SCALES OF THE AYU *PLECOGLOSSUS ALTIVELIS*. *Nippon Suisan Gakkaishi* 53(11):2089. 1987. In English. FR 33(2)
[Dep. Mar. Sci., Coll. Sci., Univ. Ryukyus, Nishihara, Okinawa 903-01, Japan]

88-001345 Northcutt, R. Glenn and Mario F. Wullimann. THE VISUAL SYSTEM IN TELEOST FISHES: MORPHOLOGICAL PATTERNS AND TRENDS. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 515-552. 1988. FR 33(2)
[Neurobiol. Unit., Scripps Inst. Oceanogr., Univ. Calif., San Diego,, La Jolla 92093]

88-001346 Osse, J. W. M. and M. R. Drost. FUNCTIONAL GROWTH OF CARP LARVAE. *Am. Zool.* 27(4):124A. 1987. Abstract only. FR 33(2)
[Agric. Univ., Wageningen, Netherlands] Cyprinidae.

88-001347 Patchell, Graham J.; Michael S. Allen and David J. Dreadon. EGG AND LARVAL DEVELOPMENT OF THE NEW ZEALAND HOKI *MACRURONUS NOVAEZELANDIAE*. *N.Z. J. Mar. Freshwater Res.* 21(2):301-313. 1987. FR 33(2)
[Fish. Res. Cent., Minist. Agric. & Fish., P.O. Box 297, Wellington, New Zealand]

88-001348 Prasad, M. S. MORPHOMETRICS OF GILLS DURING GROWTH AND DEVELOPMENT OF THE AIR-BREATHING HABIT IN *COLISA FASCIATUS* (BLOCH AND SCHNEIDER). *J. Fish Biol.* 32(3):367-381. 1988. FR 33(2)
[Chakbasu, Ramna, Muzaffarpur 842002, Bihar, India]

88-001349 Prophet, Carl W. and Jennifer K. Frey. CAPTURE OF *DIAPTOMUS SICILOIDES* AND *DIAPTOMUS PALLADIUS* BY SUCTION SIMULATOR AND GIZZARD SHAD (*DOROSOMA CEPEDIANUM*). *J. Freshwater Ecol.* 4(2):253-258. 1987. FR 33(2)
[Div. Biol. Sci., Emporia State Univ., Emporia, KS 66801]

88-001350 Quast, Jay C. MORPHOMETRIC VARIATION OF PACIFIC OCEAN PERCH, *SEBASTES ALUTUS*, OFF WESTERN NORTH AMERICA. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):663-680. 1987. FR 33(2)
[1565 Jamestown St. S.E., Salem, OR 97302]

88-001351 Raschi, William and William H. Adams. DEPTH-RELATED MODIFICATIONS IN THE ELECTRORECEPTIVE SYSTEM OF THE EURYBATHIC SKATE, *RAJA RADIATA* (CHONDRICHTHYES: RAJIDAE). *Copeia* 1988(1):116-123. 1988. FR 33(2)
[Biol. Dep., Bucknell Univ., Lewisburg, PA 17837]

MORPHOLOGY (CONTINUED)

88-001352 Ratti, Maria M. [A COMPARATIVE STUDY ON SOME MERISTIC AND MORPHOMETRIC CHARACTERS OF THE ANCHOVY (*ENGRAULIS ANCHOITA*).] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 169-182. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001353 Reutter, Klaus. SPECIALIZED RECEPTOR VILLI AND BASAL CELLS WITHIN THE TASTE BUD OF THE EUROPEAN SILURID FISH, *SILURUS GLANIS* (TELEOSTEI). *Ann. N.Y. Acad. Sci.* 510:570-573. 1987. FR 33(2)
[Anat. Inst., Univ. Tuebingen, Osterbergstr. 3, 74 Tuebingen, West Germany]

88-001354 Ruban, Georgji I. and Jiri Libosvarsky. MORPHOLOGIC SIMILARITY BETWEEN TYPICAL ROACH, *RUTILUS RUTILUS TYPICUS*, AND SIBERIAN ROACH, *RUTILUS RUTILUS LACUSTRIS* (PALLAS). *Folia Zool.* 36(2):175-181. 1987. In English with Russian summ. FR 33(2)
[A.N. Severtzov Inst. Evol. Anim. Morphol. & Ecol., USSR Acad. Sci., Leninskij prospekt 33, 117 071 Moscow, USSR]

88-001355 Saint-Paul, U. and G. M. Soares. ECOMORPHOLOGICAL ADAPATATION TO OXYGEN DEFICIENCY IN AMAZON FLOODPLAINS BY SERRASALMID FISH OF THE GENUS *MYLOSSOMA*. *J. Fish Biol.* 32(2):231-236. 1988. FR 33(2)
[Inst. Hydrobiol. & Fisch., Olbersweg 24, D-2000 Hamburg 50, West Germany] *M. duriventris* and *M. aurea*.

88-001356 Schaefer, Scott A. HOMOLOGY AND EVOLUTION OF THE OPERCULAR SERIES IN THE LORICARIOID CATFISHES (PISCES: SILUROIDEI). *J. Zool. (Lond.)* 214(1):81-93. 1988. FR 33(2)
[Div. Fish., Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560]

88-001357 Selezneva, A. A. SYMPLECTIC AND INTERHYAL BONES IN THE HYOID ARCH OF OSTEICHTHYES. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):85-91. 1987. FR 33(2)
[Paleontol. Inst., Acad. Sci. USSR-PIN, Moscow, USSR]

88-001358 Sibbing, Ferdinand A. THE ROLE OF TASTE IN THE FEEDING MECHANISM OF THE CARP (CYPRINIDAE). *Ann. N.Y. Acad. Sci.* 510:612-615. 1987. FR 33(2)
[Dep. Exp. Anim. Morphol. & Cell Biol., Agric. Univ., Marijkeweg 40, 6709 PG Wageningen, Netherlands]

88-001359 Stepien, Carol A.; Marlen Glattke and Keith M. Fink. REGULATION AND SIGNIFICANCE OF COLOR PATTERNS OF THE SPOTTED KELPFISH, *CIBBONSIA ELEGANS* COOPER, 1864 (BLENNIOIDEI: CLINIDAE). *Copeia* 1988(1):7-15. 1988. FR 33(2)
[Mar. Biol. Res. Div. A-002, Scripps Inst. Oceanogr., Univ. Calif. San Diego, La Jolla 92093]

88-001360 Stevenson, David K. USE OF LENGTH-FREQUENCY DATA TO ESTIMATE GROWTH AND MORTALITY RATES FOR SPECIES EXPLOITED BY TROPICAL SMALL-SCALE FISHERIES IN PUERTO RICO AND COSTA RICA. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M Roedel, editors.* p. 137-153. 1979. FR 33(2)

MORPHOLOGY (CONTINUED)

88-001361 Suda, Yusuke; Makoto Shimizu and Yukio Nose. [MORPHOLOGICAL VARIATIONS OF THE JAPANESE JACK MACKEREL *TRACHURUS JAPONICUS.*] *Nippon Suisan Gakkaishi* 53(11):1913-1919. 1987. In Japanese with English summ. FR 33(2)
[Tech. Dev. Dep., Toa Corp., 5 Yanbancho, Chiyoda, 102 Tokyo, Japan]

88-001362 Suda, Yusuke; Makoto Shimizu and Yukio Nose. TWO TYPES OF JAPANESE JACK MACKEREL *TRACHURUS JAPONICUS* OF SUMMER SPAWNING GROUP IN THE SAGAMI BAY REGION. *Nippon Suisan Gakkaishi* 53(11):1921-1923. 1987. In English. FR 33(2)
[Tech. Dev. Dep., Toa Corp., 5 Yanbancho, Chiyoda, 102 Tokyo, Japan]

88-001363 Templeman, Wilfred. DIFFERENCES IN SEXUAL MATURITY AND RELATED CHARACTERISTICS BETWEEN POPULATIONS OF THORNY SKATE *(RAJA RADIATA)* IN THE NORTHWEST ATLANTIC. *J. Northwest. Atl. Fish. Sci.* 7(2):155-167. 1987. FR 33(2)
[Sci. Branch, Dep. Fish. & Oceans, Northwest Atlantic Fish. Cent., P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

88-001364 Templeman, Wilfred. LENGTH-WEIGHT RELATIONSHIPS, MORPHOMETRIC CHARACTERISTICS AND THORNINESS OF THORNY SKATE *(RAJA RADIATA)* FROM THE NORTHWEST ATLANTIC. *J. Northwest Atl. Fish. Sci.* 7(2):89-98. 1987. FR 33(2)
[Dep. Fish. & Oceans, Sci. Branch, Northwest Atlantic Fish Cent., P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

88-001365 Timmermans, Lucy P. M. EARLY DEVELOPMENT AND DIFFERENTIATION IN FISH. *Sarsia* 72(3-4):331-339. 1987. FR 33(2)
[Dep. Exp. Anim. Morphol. & Cell. Biol., Agric. Univ., Marijkeweg 40, P.O. Box 338, 6700 AH Wageningen, Netherlands] *Barbus conchonius* and *Cyprinus carpio.*

88-001366 Tytler, Peter. MORPHOLOGY OF THE PRONEPHROS OF THE JUVENILE BROWN TROUT, *SALMO TRUTTA. J. Morphol.* 195(2):189-204. 1988. FR 33(2)
[Dep. Biol. Sci., Univ. Stirling, Stirling FK9 4LA, Scotland]

88-001367 Verigina, I. A. STRUCTURE OF THE CONNECTIVE-TISSUE SKELETON OF TENCH, *TINCA TINCA. J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):20-26. 1987. FR 33(2)
[Zool. Mus., Moscow State Univ., USSR]

88-001368 Vischer, H. A. COMPARATIVE ASPECTS OF THE LATERAL LINE SYSTEM IN THE COTTID SPECIES: *LEPTOCOTTUS ARMATUS, PSYCHROLUTES PARADOXUS* AND *OLIGOCOTTUS MACULOSUS. Am. Zool.* 27(4):63A. 1987. Abstract only. FR 33(2)
[Scripps Inst. Oceanogr., La Jolla, CA 92039]

88-001369 Wainwright, P. C. ECOLOGICAL CONSEQUENCES OF FUNCTIONAL INNOVATIONS: THE PHARYNGEAL JAWS OF LABRID FISHES. *Am. Zool.* 27(4):87A. 1987. Abstract only. FR 33(2)
[Univ. Calif., Irvine] *Halichoeres.*

88-001370 Walker, A. F.; R. B. Greer and A. S. Gardner. TWO ECOLOGICALLY DISTINCT FORMS OF ARCTIC CHARR *SALVELINUS ALPINUS* (L.) IN LOCH RANNOCH, SCOTLAND. *Biol. Conserv.* 43(1):43-61. 1988. FR 33(2)
[DAFS, Freshwater Fish. Lab., Pitlochry, Perthshire PH16 5LB, Scotland]

88-001371 Webb, J. F. LATERAL LINE ONTOGENY AND THE EVOLUTION OF TRUNK CANAL DIVERSITY IN THE CICHLIDAE. *Am. Zool.* 27(4):167A. 1987. Abstract only. FR 33(2)
[Neurobiol. Unit, Scripps Inst. Oceanogr., UCSD, La Jolla, CA]

MORPHOLOGY (CONTINUED)

88-001372 Webb, Jacqueline Felice. COMPARATIVE MORPHOLOGY AND EVOLUTION OF THE LATERAL LINE SYSTEM IN THE LABROID FISHES (Pisces: Perciformes). *Ph.D. dissertation, Boston Univ.* 240p. 1988. From Diss. Abstr. Int. B Sci. Eng. 48(9):2529. 1988. FR 33(2)
Labridae

PHYSIOLOGY

88-001373 Adams, Michael A.; John H. Teeter; Yair Katz and Peter B. Johnsen. REPRODUCTIVE PHEROMONES OF THE LANDLOCKED SEA LAMPREY (*PETROMYZON MARINUS*): STUDIES ON URINARY STEROIDS. *Ann. N.Y. Acad. Sci.* 510:148-151. 1987. FR 33(2)
[Monell Chem. Senses Cent., Univ. Pa., Philadelphia 19104]

88-001374 Affandi, R. and S. Biagianti. A STUDY OF THE LIVER OF EELS KEPT IN CAPTIVITY: DISTURBANCES INDUCED IN HEPATOCYTES BY ARTIFICIAL DIETS. *Aquaculture* 67(1-2):226-228. 1987. FR 33(2)
[Mar. Biol. Lab., Univ. Perpignan, Ave. Villeneuve, F-66025 Perpignan, France] *Anguilla anguilla.*

88-001375 Al-Khalifah, Abdulrhman Salih. STUDIES ON THE METABOLISM OF ASTAXANTHIN IN THE RAINBOW TROUT (*SALMO GAIRDNERI*). *Ph.D. dissertation, Univ. R.I.* 130p. 1986. From Diss. Abstr. Int. B Sci. Eng. 48(8):2152. 1988. FR 33(2)

88-001376 Ali, Mohamed Ather; Jean-Denis Dutil and Lyne Fortier. RETINAL RESPONSE IN THE POST METAMORPHIC AMERICAN EEL (*ANGUILLA ROSTRATA*) (PISCES, TELEOSTEI). *Helgol. Meerestunter.* 41(4):437-441. 1987. FR 33(2)
[Dep. Biol., Univ. Montreal, C.P. 6128, Succ. "A", Montreal, PQ, Canada H3C 3J7]

88-001377 Allen, John L. and Verdel K. Dawson. ELIMINATION OF ^{14}C-BISAZIR RESIDUES IN ADULT SEA LAMPREY (*PETROMYZON MARINUS*). *Great Lakes Fish. Comm. Tech. Rep.* No. 50. p. 9-17. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. Cent., P.O. Box 818, La Crosse, WI 54602-0818]

88-001378 Angelescu, Victor and Alejandro Anganuzzi. [TROPHIC ECOLOGY OF THE ARGENTINE CONTINENTAL SHELF ANCHOVY (ENGRAULIDAE, *ENGRAULIS ANCHOITA*). PART III. TROPHIC INDIVIDUAL REQUIREMENT IN RELATION TO GROWTH, SEXUAL CYCLE AND SEASONAL MIGRATIONS.] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 194-223. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001379 Atanassov, Christo L. and Botyo A. Botev. ISOLATION AND PARTIAL CHARACTERIZATION OF IgM-LIKE IMMUNOGLOBULINS FROM THE SERUM OF CARP (*CYPRINUS CARPIO* L.), FROG (*RANA RIDIBUNDA* PALL.) AND TORTOISE (*TESTUDO GRAECA* PALL.). *Comp. Biochem. Physiol. B Comp. Biochem.* 89(4):737-741. 1988. FR 33(2)
[Inst. Cell. Biol. & Morphol., Acad. G. Bontchevstr., Bl. 25, Sofia 113, Bulgaria]

88-001380 Atema, Jelle; Richard R. Fay; Arthur N. Popper and William N. Tavolga, editors. SENSORY BIOLOGY OF AQUATIC ANIMALS: INTERNATIONAL CONFERENCE ON THE SENSORY BIOLOGY OF AQUATIC ANIMALS HELD JUNE 24-28, 1985

PHYSIOLOGY (CONTINUED)

88-001380 CONTINUED IN SARASOTA, FLA. *Springer-Verlag* 936p. 1988. FR 33(2)
[Boston Univ. Mar. Program, Mar. Biol. Lab., Woods Hole, MA 02543] Selected chapters indexed in this issue of *Fisheries Review*.

88-001381 Avila, Enrique M. THE EFFECTS OF TEMPERATURE AND STARVATION ON THE ULTRASTRUCTURE OF THE HEPATOCYTES OF SEAPERCH FINGERLINGS, *LATES CALCARIFER* (BLOCH). *Zool. Anz.* 219(1/2):103-112. 1987. In English. FR 33(2)
[Zool. Inst. I, Univ. Heidelberg, Im Neuenheimer Feld 230, D-6900 Heidelberg 1, West Germany]

88-001382 Barton, Bruce A.; Carl B. Schreck and Laurie G. Fowler. FASTING AND DIET CONTENT AFFECT STRESS-INDUCED CHANGES IN PLASMA GLUCOSE AND CORTISOL IN JUVENILE CHINOOK SALMON. *Prog. Fish-Cult.* 50(1):16-22. 1988. FR 33(2)
[Div. Wildl. Resour., Fish. Exp. Stn., 1465 West 200 North, Logan, UT 84321] *Oncorhynchus tshawytscha*.

88-001383 Basaglia, Fulvia and Carlo Callegarini. BIOCHEMICAL CHARACTERISTICS OF RED MULLET OF THE CENTRAL MEDITERRANEAN. *Comp. Biochem. Physiol. B Comp. Biochem.* 89(4):731-736. 1988. FR 33(2)
[Inst. Comp. Anat., Univ. Ferrara, V.L. Borsari 46, Ferrara 44100, Italy] *Mullus barbatus*, and *M. surmuletus*.

88-001384 Baugh, Thomas M.; James E. Deacon and Patricia Fitzpatrick. REPRODUCTION AND GROWTH OF THE PAHRUMP POOLFISH (*EMPETRICHTHYS LATOS LATOS* MILLER) IN THE LABORATORY AND NATURE. *J. Aquaricult. Aquat. Sci.* 5(1):1-5. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Jacksonville Field Stn., 2747 Art Museum Dr., Jacksonville, FL 32207]

88-001385 Beamish, F. W. H. and P. D. MacMahon. APPARENT HEAT INCREMENT AND FEEDING STRATEGY IN WALLEYE, *STIZOSTEDION VITREUM VITREUM*. *Aquaculture* 68(1):73-82. 1988. FR 33(2)
[Dep. Zool. & Group Adv. Fish. Studies, Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-001386 Becker, A. J., Jr.; P. K. Chilson and J. W. Meade. HEMATOLOGICAL RESPONSES OF LAKE TROUT TO METABOLITE LOADING. *Am. Zool.* 27(4):43A. 1987. Abstract only. FR 33(2)
[Mansfield Univ., Mansfield, PA] *Salvelinus namaycush*.

88-001387 Bemis, W. E. FUNCTIONAL MECHANICS OF JAW-OPENING AND JAW-CLOSING IN THE PADDLEFISH, *POLYODON SPATHULA*. *Am. Zool.* 27(4):87A. 1987. Abstract only. FR 33(2)
[Univ. Mass., Amherst]

88-001388 Berndtson, Amy K. and Frederick W. Goetz. PROTEASE ACTIVITY IN BROOK TROUT (*SALVELINUS FONTINALIS*) FOLLICLE WALLS DEMONSTRATED BY SUBSTRATE-POLYACRYLAMIDE GEL ELECTROPHORESIS. *Biol. Reprod.* 38(2):511-516. 1988. FR 33(2)
[Univ. Notre Dame, Dep. Biol. Sci., Notre Dame, IN 46556]

88-001389 Black, D. and R. Malcolm Love. ESTIMATING THE CARBOHYDRATE RESERVES IN FISH. *J. Fish Biol.* 32(3):335-340. 1988. FR 33(2)
[Rowett Res. Inst., Bucksburn, Aberdeen AB2 9SB, Scotland] *Gadus morhua*.

PHYSIOLOGY (CONTINUED)

88-001390 Boese, Bruce L. HYPOXIA-INDUCED RESPIRATORY CHANGES IN ENGLISH SOLE (*PAROPHRYS VETULUS* GIRARD). *Comp. Biochem. Physiol. A Comp. Physiol.* 89(2):257-260. 1988. FR 33(2)
[U.S. Environ. Protection Agency, Pac. Div., Hatfield Mar. Sci. Cent., Newport, OR 97365]

88-001391 Brand, Joseph G.; Bruce P. Bryant; Robert H. Cagan and D. Lynn Kalinoski. ENANTIOMERIC SPECIFICITY OF ALANINE TASTE RECEPTOR SITES IN CATFISH. *Ann. N.Y. Acad. Sci.* 510:193-195. 1987. FR 33(2)
[Monell Chem. Senses Cent., Univ. Pa., Philadelphia 19104] *Ictalurus punctatus*.

88-001392 Brannas, Eva. EFFECTS OF PHOTOPERIOD AND TEMPERATURE ON EMERGENCE PATTERN IN THE BALTIC SALMON. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 105. 1986. Abstract only. FR 33(2)
[Dep. Ecol. Zool., Univ. Umea, S-901 87 Umea, Sweden]

88-001393 Bres, Odd; D. Cyr and J. G. Eales. THE EFFECT OF DIETARY RATION AND ALTERATION OF PLASMA T3 CONCENTRATIONS ON HEPATIC NUCLEAR T3 RECEPTORS IN THE RAINBOW TROUT (*SALMO GAIRDNERI*). *Am. Zool.* 27(4):74A. 1987. Abstract only. FR 33(2)
[Univ. Manitoba, Winnipeg, MB, Canada]

88-001394 Bridges, Christopher Robert. RESPIRATORY ADAPTATIONS IN INTERTIDAL FISH. *Am. Zool.* 28(1):79-96. 1988. FR 33(2)
[Inst. Zool. IV, Univ. Dusseldorf, D-4000 Dusseldorf, West Germany]

88-001395 Brown, C. R. and J. N. Cameron. THE RELATIONSHIP BETWEEN SPECIFIC DYNAMIC ACTION (SDA), AMINO ACID INFUSION AND PROTEIN SYNTHESIS RATES IN THE CHANNEL CATFISH. *Am. Zool.* 27(4):55A. 1987. Abstract only. FR 33(2)
[Univ. Tex. Mar. Sci. Inst., Port Aransas] *Ictalurus punctatus*.

88-001396 Brunson, Martin W. and H. Randall Robinette. REPRODUCTIVE ISOLATION BETWEEN A HYBRID SUNFISH AND ITS PARENTAL SPECIES. *Prog. Fish-Cult.* 49(4):296-298. 1987. FR 33(2)
[Rice Res. Stn., Agric. Exp. Stn., La. State Univ. Agric. Cent., P.O. Box 1429, Crowley 70527] *Lepomis macrochirus* and *L. cyanellus*.

88-001397 Bunde, Carolyn Jean Wilson. EFFECTS OF CORTISOL AND TESTOSTERONE ON CORONARY ARTERIOSCLEROSIS IN JUVENILE RAINBOW TROUT *SALMO GAIRDNERI*. *Ph.D. dissertation, Idaho State Univ.* 221p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(6):1609. 1987. FR 33(2)

88-001398 Burger, G. and B. Chevassus. [POTENTIAL OF SELECTION FOR AGE AT FIRST SEXUAL MATURATION IN RAINBOW TROUT (*SALMO GAIRDNERI* R.).] *Bull. Fr. Peche Piscic.* 307(4):102-117. 1987. In French with English summ. FR 33(2)
[Lab. Genet. Poissons, I.N.R.A., 78350 Jouy-en-Josas, France]

88-001399 Burrows, A. S. and T. C. Fletcher. BLOOD LEUCOCYTES OF THE TURBOT, *SCOPHTHALMUS MAXIMUS* (L.). *Aquaculture* 67(1-2):214-215. 1987. FR 33(2)
[Dep. Biol. Sci., Plymouth Polytech., Plymouth PL4 8AA, England]

PHYSIOLOGY (CONTINUED)

88-001400 Burton, D. A COMPARISON OF THE EFFECTS OF TEMPERATURE ON MELANOPHORE *IN VITRO* RESPONSES TO NORADRENALIN IN TWO TELEOST SPECIES ADAPTED TO COLD OCEAN AND TROPICAL CONDITIONS. *J. Fish Biol.* 32(3):433-442. 1988. FR 33(2)
[Mar. Sci. Res. Lab., Memorial Univ., Newfoundland, St. John's, NF, Canada A1C 5S7] *Poecilia velifera* and *Pseudopleuronectes americanus* in North Atlantic Ocean.

88-001401 Butler, David G. and John H. Youson. KIDNEY FUNCTION IN THE BOWFIN (*AMIA CALVA* L.). *Comp. Biochem. Physiol. A Comp. Physiol.* 89(3):343-345. 1988. FR 33(2)
[Dep. Zool. & Scarborough Coll., Univ. Toronto, Toronto, ON, Canada M5S 1A1]

88-001402 Buttiker, Bernard; Gilbert Matthey; Julius Bel and Patrick Durand. [AGE AND GROWTH OF THE LAKE BROWN TROUT (*SALMO TRUTTA LACUSTRIS* L.) OF LEMAN.] *Swiss J. Hydrol.* 49(3): 1987. In French with English summ. FR 33(2)
[Conserv. faune, 1, chemin Marquisat, CH-1025 St.-Sulpice, Switzerland]

88-001403 Calow, P., editor. EVOLUTIONARY PHYSIOLOGICAL ECOLOGY. *Cambridge Univ. Press* 239p. 1987. FR 33(2)
Selected chapters indexed in this issue of *Fisheries Review*.

88-001404 Campton, Donald E. and Graham A. E. Gall. RESPONSES TO SELECTION FOR BODY SIZE AND AGE AT SEXUAL MATURITY IN THE MOSQUITOFISH, *GAMBUSIA AFFINIS*. *Aquaculture* 68(3):221-241. 1988. FR 33(2)
[Dep. Fish. & Aquacult., Univ. Fla., 7922 N.W. 71st St., Gainesville 32606]

88-001405 Caprio, John. PERIPHERAL FILTERS AND CHEMORECEPTOR CELLS IN FISHES. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 313-338. 1988. FR 33(2)
[Dep. Zool. & Physiol., La. State Univ., Baton Rouge 70803]

88-001406 Carter, C. A. and J. P. Wourms. VELOCITY AND DIRECTIONALITY OF CELL MOVEMENT DURING DISPERSION-REAGGREGATION STAGES OF ANNUAL FISH DEVELOPMENT. *Am. Zool.* 27(4):91A. 1987. Abstract only. FR 33(2)
[Clemson Univ., Clemson, SC] *Cynolebias nigripinnis*.

88-001407 Chapman, Duane C.; Wayne A. Hubert and U. Thomas Jackson. INFLUENCE OF ACCESS TO AIR AND OF SALINITY ON GAS BLADDER INFLATION IN STRIPED BASS. *Prog. Fish-Cult.* 50(1):23-27. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Contam. Res. Cent., Denver, CO 80225] *Morone saxatilis* and *M. chrysops*.

88-001408 Christiansen, Haraldo E. and Maria B. Cousseau. [CONTRIBUTION TO THE DETERMINATION OF REPRODUCTIVE FREQUENCY IN ANCHOVY (*ENGRAULIS ANCHOITA*). *Physis (B. Aires) Secc. A.* 43(104): 7-17. 1985. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001409 Clarke, W. Craig and John E. Shelbourn. GROWTH AND DEVELOPMENT OF SEAWTER ADAPTABILITY BY JUVENILE COHO SALMON (*ONCORHYNCHUS KISUTCH* WALBAUM) IN RELATION TO TEMPERATURE AND PHOTOPERIOD PHASE. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 105. 1986. Abstract only. FR 33(2)
[Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

PHYSIOLOGY (CONTINUED)

88-001410 Collins, Mark R.; C. Wayne Waltz; William A. Roumillat and Daryl L. Stubbs. CONTRIBUTION TO THE LIFE HISTORY AND REPRODUCTIVE BIOLOGY OF GAG, *MYCTEROPERCA MICROLEPIS* (SERRANIDAE), IN THE SOUTH ATLANTIC BIGHT. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):648-653. 1987. FR 33(2)
[Wildl. & Mar. Resour. Dep., Mar. Resour. Res. Inst., P.O. Box 12559, Charleston, SC 29412]

88-001411 Crim, J. W.; I. M. Rajjo and S. R. Vigna. ACTIONS OF CHOLECYSTOKININ (CCK) PEPTIDES ON FISH GALLBLADDER IN VITRO. *Am. Zool.* 27(4):73A. 1987. Abstract only. FR 33(2)
[Univ. Ga., Athens] *Lepomis macrochirus, Fundulus heteroclitus,* and *Amia calva.*

88-001412 Crim, Laurence W.; Rene St. Arnaud; Michel Lavoie and Fernand Labrie. A STUDY OF LH-RH RECEPTORS IN THE PITUITARY GLAND OF THE WINTER FLOUNDER (*PSEUDOPLEURONECTES AMERICANUS* WALBAUM). *Gen. Comp. Endocrinol.* 69(3):372-377. 1988. FR 33(2)
[Mar. Sci. Res. Lab., Memorial Univ. Newfoundland, St. John's, NF, Canada A1C 5S7]

88-001413 Cyr, D. G.; N. R. Bromage; J. Duston and J. G. Eales. SEASONAL PATTERNS IN SERUM LEVELS OF THYROID HORMONES AND SEX STEROIDS IN RELATION TO PHOTOPERIOD-INDUCED CHANGES IN SPAWNING TIME IN RAINBOW TROUT, *SALMO GAIRDNERI. Gen. Comp. Endocrinol.* 69(2):217-255. 1988. FR 33(2)
[Dep. Zool., Univ. Manitoba, Winnipeg, MB, Canada R3T 2N2]

88-001414 Cyr, Daniel G.; Deborah L. MacLatchy and J. G. Eales. THE INFLUENCE OF SHORT-TERM 17β-ESTRADIOL TREATMENT ON PLASMA T_3 LEVELS AND *IN VITRO* HEPATIC T_4 5'-MONODEIODINASE ACTIVITY IN IMMATURE RAINBOW TROUT, *SALMO GAIRDNERI. Gen. Comp. Endocrinol.* 69(3):431-438. 1988. FR 33(2)
[Dep. Zool., Univ. Manitoba, Winnipeg, MB, Canada R3T 2N2]

88-001415 Dabrowski, K.; M. Luczynski; B. Czeczuga and S. Falkowski. RELATIONSHIPS AMONG COREGONID FISH REPRODUCTIVE EFFORT, CAROTENOID CONTENT IN EGGS AND SURVIVAL OF EMBRYOS. *Arch. Hydrobiol.* 79(Suppl. 1):29-48. 1987. FR 33(2)
[Dep. Basic Fish. Sci., Acad. Agric. & Technol., PL-10-957 Olsztyn-Kortowo, Poland] *Coregonus albula.*

88-001416 Daikoku, Toshiko; Michiyo Murata and Morihiko Sakaguchi. EFFECTS OF INTRAPERITONEALLY INJECTED AND DIETARY TRIMETHYLAMINE ON THE BIOSYNTHESIS OF TRIMETHYLAMINE OXIDE IN RELATION TO SEAWATER ADAPTATION OF THE EEL, *ANGUILLA JAPONICA* AND THE GUPPY, *POECILIA RETICULATA. Comp. Biochem. Physiol. A Comp. Physiol.* 89(2):261-264. 1988. FR 33(2)
[Lab. Biol., Baika Women's Coll., Shukuno-sho 2-19-5, Ibaraki, Osaka 567, Japan]

88-001417 Danzmann, Roy G. and Moira M. Ferguson. TEMPERATURE-DEPENDENT GENOTYPIC SELECTION AND EMBRYONIC SURVIVAL OF RAINBOW TROUT. *Biochem. Genet.* 26(1/2):69-81. 1988. FR 33(2)
[Chesapeake Bay Inst., Johns Hopkins Univ., Shady Side, MD 20764] *Salmo gairdneri.*

88-001418 Davis, Donald A. and Edwin H. Robinson. DIETARY PHOSPHORUS REQUIREMENT OF JUVENILE RED DRUM *SCIAENOPS OCELLATUS. J. World Aquacult. Soc.* 18(3):129-136. 1987. FR 33(2)
[Robinson: Delta Branch Exp. Stn., P.O. Box 197, Stoneville, MS 38776]

PHYSIOLOGY (CONTINUED)

88-001419 Davis, Kenneth B.; Cheryl A. Goudie; Bill A. Simco; Robert MacGregor III and Nick C. Parker. ENVIRONMENTAL REGULATION AND INFLUENCE OF THE EYES AND PINEAL GLAND ON THE GONADAL CYCLE AND SPAWNING IN CHANNEL CATFISH (*ICTALURUS PUNCTATUS*). *Physiol. Zool.* 59(6):717-724. 1986. FR 33(2)
[Ecol. Res. Cent., Dep. Biol., Memphis State Univ., Memphis, TN 38152]

88-001420 DeMartini, Edward E. TESTS OF OVARY SUBSAMPLING OPTIONS AND PRELIMINARY ESTIMATES OF BATCH FECUNDITY FOR TWO *PARALABRAX* SPECIES. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:168-170. 1987. In English with Spanish summ. FR 33(2)
[Mar. Rev. Comm. Res. Cent., 531 Encinitas Blvd., Encinitas, CA 92024] *P. nebulifer* and *P. clathratus*.

88-001421 Denton, Eric J. and John A. B. Gray. MECHANICAL FACTORS IN THE EXCITATION OF THE LATERAL LINES OF FISHES. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 595-617. 1988. FR 33(2)
[Mar. Biol. Assoc. United Kingdom, Lab., Plymouth PL1 29B, England]

88-001422 Deshpande, Anant Venkatrao and Vinayak Baburao Nadkarni. EFFECTS OF GONADECTOMY AND GONADECTOMY FOLLOWED BY STEROID HORMONE TREATMENT ON THE INTERRENAL CELLS OF THE CATFISH, *CLARIAS BATRACHUS* (LINN.). *Zool. Anz.* 219(1/2):59-65. 1987. In English. FR 33(2)
[Dep. Zool., Karnatak Univ., Dharwad-580 003, India]

88-001423 Dheer, J. M. S. HAEMATOLOGICAL, HAEMATOPOIETIC AND BIOCHEMICAL RESPONSES TO THERMAL STRESS IN AN AIR-BREATHING FRESHWATER FISH, *CHANNA PUNCTATUS* BLOCH. *J. Fish Biol.* 32(2):197-206. 1988. FR 33(2)
[Dep. Zool., Univ. Rajasthan, Jaipur-302 004, India]

88-001424 Dickson, Kathryn A. and George N. Somero. PARTIAL CHARACTERIZATION OF THE BUFFERING COMPONENTS OF THE RED AND WHITE MYOTOMAL MUSCLE OF MARINE TELEOSTS, WITH SPECIAL EMPHASIS ON SCOMBRID FISHES. *Physiol. Zool.* 60(6):699-706. 1987. FR 33(2)
[Biol. Dep., Bucknell Univ., Lewisburg, PA 17837]

88-001425 Down, N. E.; Edward M. Donaldson; Helen M. Dye; Keith Langley and Lawrence M. Souza. RECOMBINANT BOVINE SOMATOTROPIN MORE THAN DOUBLES THE GROWTH RATE OF COHO SALMON (*ONCORHYNCHUS KISUTCH*) ACCLIMATED TO SEAWATER AND AMBIENT WINTER CONDITIONS. *Aquaculture* 68(2):141-155. 1988. FR 33(2)
[West Vancouver Lab., Biol. Sci. Branch, Dep. Fish. & Oceans, West Vancouver, BC, Canada V7V 1N6]

88-001426 Down, N. E.; R. E. Peter and J. F. Leatherland. GONADOTROPIN CONTENT OF THE PITUITARY GLAND OF GONADAL TUMOR-BEARING COMMON CARP X GOLDFISH HYBRIDS FROM THE GREAT LAKES, AS ASSESSED BY BIOASSAY AND RADIOIMMUNOASSAY. *Gen. Comp. Endocrinol.* 69(2):288-300. 1988. FR 33(2)
[Dep. Fish. & Oceans, West Vancouver Lab., West Vancouver, BC, Canada] *Carassius auratus* and *Cyprinus carpio*.

88-001427 Du Preez, Hein H.; Anton McLachlan and J. F. K. Marais. OXYGEN CONSUMPTION OF TWO NEARSHORE MARINE ELASMOBRANCHS, *RHINOBATOS ANNULATUS* (MULLER & HENLE, 1841) AND *MYLIOBATUS AQUILA* (LINNAEUS, 1758). *Comp. Biochem. Physiol. A Comp. Physiol.* 89(2):283-294. 1988. FR 33(2)
[Res. Unit Fish Biol., Rand Afrikaanse Univ., P.O. Box 524, Johannesburg 2000, South Africa]

PHYSIOLOGY (CONTINUED)

88-001428 Dunbrack, R. LeB. and D. M. Ware. ENERGY CONSTRAINTS AND REPRODUCTIVE TRADE-OFFS DETERMINING BODY SIZE IN FISHES. *In: Evolutionary Physiological Ecology. P. Calow, editor.* p. 191-218. 1987. FR 33(2)
[Dep. Fish. & Oceans, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

88-001429 Eckmann, Reiner. A COMPARATIVE STUDY ON THE TEMPERATURE DEPENDENCE OF EMBRYOGENESIS IN THREE COREGONIDS (*COREGONUS* SPP.) FROM LAKE CONSTANCE. *Swiss J. Hydrol.* 49(3):353-362. 1987. In French with English summ. FR 33(2)
[Limnol. Inst., Univ. Constance, P.O. Box 5560, D-7750, Kanstanz, West Germany] *Coregonus albula, C. lavaretus,* and *C. fera.*

88-001430 Erdahl, David and Jerry McClain. EFFECTS OF LH-RH ANALOGUE TREATMENT ON EGG MATURATION (OVULATION) IN LAKE TROUT BROOD STOCK. *Prog. Fish-Cult.* 49(4):276-279. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Iron River Natl. Fish Hatchery, Iron River, WI 54847] *Salvelinus namaycush.*

88-001431 Erikkson, Lars-Ove; Per Sjostrom and Bo-Soren Wiklund. ENERGETICS IN THE FOOD PARTICLE SIZE SELECTION OF ARCTIC CHAR. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 108. 1986. Abstract only. FR 33(2)
[Dep. Ecol. Zool., Univ. Umea, S-901 87 Umea, Sweden] *Salvelinus alpinus.*

88-001432 Facey, Douglas Edward. METABOLIC CONSTRAINTS AND MICROHABITAT SELECTION IN FOUR STREAM FISHES. *Ph.D. dissertation, Univ. Ga.* 101p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2232. 1988. FR 33(2)
Salmo gairdneri, Clinostomus funduloides, Cottus bairdi, and *Rhinichthys cataractae.*

88-001433 Falcon, Jacky; Colette Besse; Jerome Guerlotte and Jean-Pierre Collin. 5'-NUCLEOTIDASE ACTIVITY IN THE PINEAL ORGAN OF THE PIKE. *Cell Tissue Res.* 251(2):495-502. 1988. FR 33(2)
[Lab. Biol. Cell., 40 Ave. Recteur Pineau, F-86022 Poitiers Cedex, France] *Esox lucius.*

88-001434 Farbridge, K. J. and J. F. Leatherland. LUNAR PERIODICITY OF GROWTH CYCLES IN RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON. *J. Interdiscipl. Cycle Res.* 18(3):169-177. 1987. FR 33(2)
[Dep. Zool., Group Adv. Fish. Studies, Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-001435 Fay, Richard R. PERIPHERAL ADAPTATIONS FOR SPATIAL HEARING IN FISH. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 711-731. 1988. FR 33(2)
[Parmly Hearing Inst., Loyola Univ., Chicago, IL 60626]

88-001436 Fernald, Russell D. AQUATIC ADAPTATIONS IN FISH EYES. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 435-466. 1988. FR 33(2)
[Inst. Neurosci., Univ. Oreg., Eugene 97403]

88-001437 Finger, Thomas E. ORGANIZATION OF CHEMOSENSORY SYSTEMS WITHIN THE BRAINS OF BONY FISHES. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.*

PHYSIOLOGY (CONTINUED)

88-001437 CONTINUED p. 339-363. 1988. FR 33(2)
[Dep. Cell. & Struct. Biol., B-111, Denver, CO 80262]

88-001438 Flood, Per R.; Dmitri Gulyaev and Harald Kryvi. ORIGIN AND DIFFERENTIATION OF MUSCLE FIBRE TYPES IN THE TRUNK OF THE STURGEON, *ACIPENSER STELLATUS* PALLAS. *Sarsia* 72(3-4):343-344. 1987. FR 33(2)
[Dep. Anat., Univ. Bergen, Arstadveien 19, N-5009 Bergen, Norway]

88-001439 Flory, C. M. NEUROMODULATION OF IMMUNITY IN SALMONIDS. *Am. Zool.* 27(4):99A. 1987. Abstract only. FR 33(2)
[Oreg. State Univ., Corvallis] *Oncorhynchus kisutch.*

88-001440 Forster, M. E.; P. S. Davie; W. Davison; G. H. Satchell and R. M. G. Wells. BLOOD PRESSURES AND HEART RATES IN SWIMMING HAGFISH. *Comp. Biochem. Physiol. A Comp. Physiol.* 89(2):247-250. 1988. FR 33(2)
[Dep. Zool., Univ. Canterbury, Christchurch, New Zealand] *Eptatretus cirrhatus* and *Myxine glutinosa.*

88-001441 Fraboni, Peter J. and John J. Poluhowich. BOHR-EFFECT ENHANCEMENT IN *ANGUILLA ROSTRATA* (LeSUEUR) HEMOGLOBIN TREATED WITH ERYTHROCYTIC ORGANIC PHOSPHATES. *J. Exp. Mar. Biol. Ecol.* 115(3):213-220. 1988. FR 33(2)
[Poluhowich: Dep. Biol. & Geosci., W. Tex. State Univ., Canyon 79016]

88-001442 Frith, H. R. ENERGETICS AND PERFORMANCE OF FAST-STARTS IN *ESOX LUCIUS. Am. Zool.* 27(4):63A. 1987. Abstract only. FR 33(2)
[Univ. British Columbia, Vancouver, BC, Canada]

88-001443 Fyhn, Hans Jorgen; Bjorn Serigstad and Anders Mangor-Jensen. FREE AMINO ACIDS IN DEVELOPING EGGS AND YOLK-SAC LARVAE OF THE COD, *GADUS MORHUA* L. *Sarsia* 72(3-4):363-365. 1987. FR 33(2)
[Zool. Lab., Univ. Bergen, N-5027 Bergen, Norway]

88-001444 Gallagher, Margie Lee and Anne Marie Matthews. OXYGEN CONSUMPTION AND AMMONIA EXCRETION OF THE AMERICAN EEL *ANGUILLA ROSTRATA* FED DIETS WITH VARYING PROTEIN ENERGY RATIOS AND PROTEIN LEVELS. *J. World Aquacult. Soc.* 18(2):107-112. 1987. FR 33(2)
[Inst. Coastal & Mar. Resour. & School Home Econ., East Carolina Univ., Greenville, NC 27834]

88-001445 Galvan, I. S. and C. J. Bayne. EFFECT OF ESTRADIOL ON THE CHEMILUMINESCENT RESPONSE OF RAINBOW TROUT HEAD KIDNEY LEUKOCYTES. *Am. Zool.* 27(4):89A. 1987. Abstract only. FR 33(2)
[Oreg. State Univ., Corvallis] *Salmo gairdneri.*

88-001446 Gehrke, Peter C. and Donald R. Fielder. EFFECTS OF TEMPERATURE AND DISSOLVED OXYGEN ON HEART RATE, VENTILATION RATE AND OXYGEN CONSUMPTION OF SPANGLED PERCH, *LEIOPOTHERAPON UNICOLOR* (GUNTHER 1859), (PERCOIDEI, TERAPONIDAE). *J. Comp. Physiol. B Biochem. Syst. Environ. Physiol.* 157(6):771-782. 1988. FR 33(2)
[Dep. Zool., Univ. British Columbia, 6270 University Blvd., Vancouver, BC, Canada V6T 2A9]

88-001447 Gern, W. A.; S. S. Greenhouse and M. D. Holder. EFFECTS OF LIGHT INTENSITY AND COLOR ON *IN VITRO* MELATONIN SECRETION FROM TROUT PINEAL ORGANS. *Am. Zool.* 27(4):30A. 1987. Abstract only. FR 33(2)
[Univ. Wyo., Laramie] *Salmo gairdneri.*

PHYSIOLOGY (CONTINUED)

88-001448 Ghaswala, P. S. and S. B. Rao. PRELIMINARY STUDIES ON A PROTEASE FROM CARP FISH MUSCLE - PARTIAL PURIFICATION AND SOME PECULIAR PROPERTIES. *Indian J. Comp. Anim. Physiol.* 5(1):44-47. 1987. FR 33(2)
[Dep. Biochem., Grant Med. Coll., Bombay 400 008, India] *Cyprinus carpio.*

88-001449 Girija, N.; G. Madhu Sudhana Rao and N. Chari. HEART, RED AND WHITE COMPONENTS OF LATERAL MUSCLE OF A FRESHWATER FISH, *CLARIUS BATRACHUS* (LINN.): A COMPARATIVE BIOCHEMICAL STUDY. *Indian J. Comp. Anim. Physiol.* 4(1):18-24. 1986. FR 33(2)
[Dep. Zool., Kakatiya Univ., Vidyaranyapuri, Warangal-506 009, A.P., India]

88-001450 Gladstone, William and Mark Westoby. GROWTH AND REPRODUCTION IN *CANTHIGASTER VALENTINI* (PISCES, TETRAODONTIDAE): A COMPARISON OF A TOXIC REEF FISH WITH OTHER REEF FISHES. *Environ. Biol. Fishes* 21(3):207-221. 1988. FR 33(2)
[School Biol. Sci., F07, Univ. Sydney, Sydney, N.S.W. 2006, Australia]

88-001451 Gnaiger, E.; M. Ortner; G. E. Rieger and W. Salvenmoser. AEROBIC AND ANOXIC METABOLISM IN SALMONID EMBRYOS: MICROCALORIMETRY, RESPIROMETRY, AND MITOCHONDRIAL CHANGES. *Am. Zool.* 27(4):31A. 1987. Abstract only. FR 33(2)
[Univ. Innsbruck, Innsbruck, Austria] *Salvelinus alpinus.*

88-001452 Goldberg, Stephen R. and Marie C. Pizzorno. NOTES ON SPAWNING OF THE FISH *BELONE STOLZMANNI* (BELONIDAE) FROM PERU. *Pac. Sci.* 39(4):367-368. 1985. FR 33(2)
[Dep. Biol., Whittier Coll., Whittier, CA 90608]

88-001453 Goss, G. G. and C. M. Wood. THE EFFECTS OF ACID AND ACID/ALUMINUM EXPOSURE ON CIRCULATING PLASMA CORTISOL LEVELS AND OTHER BLOOD PARAMETERS IN THE RAINBOW TROUT, *SALMO GAIRDNERI. J. Fish Biol.* 32(1):63-76. 1988. FR 33(2)
[Dep. Biol., McMaster Univ., 1280 Main St. West, Hamilton, ON, Canada L8S 4K1]

88-001454 Graham, Mark Stephen. OXYGEN UPTAKE AND DELIVERY IN COLD TEMPERATE MARINE TELEOSTS. *Ph.D. dissertation, Memorial Univ. Newfoundland (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(7):1904. 1988. FR 33(2)
Pseudopleuronectes americanus and *Hemitripterus americanus.*

88-001455 Grasdalen, H. and L. Jorgensen. IN VIVO NMR-STUDIES OF FISH EGGS. MONITORING OF METABOLITE LEVELS, INTRACELLULAR pH, AND THE FREEZING AND PERMEABILITY OF WATER IN DEVELOPING EGGS OF PLAICE, *PLEURONECTES PLATESSA L. Sarsia* 72(3-4):359-361. 1987. FR 33(2)
[Inst. Biotechnol., Norwegian Inst. Technol., Univ. Trondheim, N-7034 Trondheim-NTH, Norway]

88-001456 Greeley, M. S., Jr.; R. McPherson and R. A. Wallace. THE ROLES OF PHYSIOLOGICAL IONS IN THE HYDRATION OF *FUNDULUS HETEROCLITUS* OOCYTES DURING MEIOTIC MATURATION. *Am. Zool.* 27(4):91A. 1987. Abstract only. FR 33(2)
[Whitney Lab., Univ. Fla., St. Augustine]

PHYSIOLOGY (CONTINUED)

88-001457 Hadj Kacem, N.; J. F. Aldrin and B. Romestand. [MODIFICATIONS OF SOME SECONDARY STRESS RESPONSES IN *DICENTRARCHUS LABRAX* BY THE USE OF A β-BLOCKER WITH A CARAZOLOL BASE. APPLICATION TO TRANSPORT.] *Aquaculture* 68(3):277-285. 1988. In French with English summ. FR 33(2)
[IFREMER, Cent. Brest, 29273 Brest Cedex, France]

88-001458 Hansen, Michael J. SIZE AND CONDITION OF TROUT AND SALMON FROM THE WISCONSIN WATERS OF LAKE MICHIGAN, 1969-84. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 126. 28p. 1986. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI]

88-001459 Hart, S.; A. B. Wrathmell; T. A. Doggett and J. E. Harris. AN INVESTIGATION OF THE BILIARY AND INTESTINAL IMMUNOGLOBULIN AND THE PLASMA CELL DISTRIBUTION IN THE GALL BLADDER AND LIVER OF THE COMMON DOGFISH, *SCYLIORHINUS CANICULA* L. *Aquaculture* 67(1-2):147-155. 1987. FR 33(2)
[Dep. Biol. Sci., Plymouth Polytech., Drake Circus, Plymouth, Devon PLY 8AA, England]

88-001460 Hay, D. E.; D. N. Outram; B. A. McKeown and M. Hurlburt. OVARIAN DEVELOPMENT AND OOCYTE DIAMETER AS MATURATION CRITERIA IN PACIFIC HERRING (*CLUPEA HARENGUS PALLASI*). *Can. J. Fish. Aquat. Sci.* 44(8):1496-1502. 1987. In English with French summ. FR 33(2)
[Dep. Fish. & Oceans, Fish. Res. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

88-001461 Hayashi, Kenji. LIQUID WAX ESTERS IN LIVER OILS OF THE DEEP-SEA TELEOST FISH *LAEMONEMA LONGIPES*. *Nippon Suisan Gakkaishi* 53(12):2263-2267. 1987. In English. FR 33(2)
[Fac. Fish., Hokkaido Univ., Hakodate, Hokkaido 041, Japan]

88-001462 Helms, L. M. H.; E. G. Grau and S. K. Shimoda. A ROLE OF cAMP IN THE REGULATION OF PROLACTIN RELEASE FROM THE PITUITARY OF THE TILAPIA, *OREOCHROMIS MOSSAMBICUS*. *Am. Zool.* 27(4):74A. 1987. Abstract only. FR 33(2)
[Univ. Hawaii, Honolulu]

88-001463 Helms, Lisa. LOCATION OF THYROTROPIC ACTIVITY IN THE PITUITARIES OF TWO TELEOST FISH. *Pac. Sci.* 39(4):385. 1988. Abstract Only. FR 33(2)
Oreochromis mossambicus and *Scarus dubius*.

88-001464 Henderson-Arzapalo, Anne and Robert L. Colura. LABORATORY MATURATION AND INDUCED SPAWNING OF STRIPED BASS. *Prog. Fish-Cult.* 49(1):60-63. 1987. FR 33(2)
[Parks & Wildl. Dep., Terry R. Bass Mar. Fish. Res. Stn., Star Rt., Box 385, Palacios, TX 77465] *Morone saxatilis*.

88-001465 Henmi, Hikaru; Tsutomu Iwata; Masahiro Hata and Mitsuo Hata. STUDIES ON CAROTENOIDS IN THE MUSCLE OF SALMONS. I. INTRACELLULAR DISTRIBUTION OF CAROTENOIDS IN THE MUSCLE. *Tohoku J. Agric. Res.* 37(3-4):101-111. 1987. FR 33(2)
[Lab. Fish. Chem., Dep. Fish. Sci., Fac. Agric., Tohoku Univ., Sendai 980, Japan] *Oncorhynchus keta, O. Kisutch,* and *O. nerka*.

88-001466 Henry, Raymond P.; Neal J. Smatresk and James N. Cameron. THE DISTRIBUTION OF BRANCHIAL CARBONIC ANHYDRASE AND THE EFFECTS OF GILL AND ERYTHROCYTE CARBONIC ANHYDRASE INHIBITION IN THE CHANNEL CATFISH *ICTALURUS PUNCTATUS*. *J. Exp. Biol.* 134:201-218. 1988. FR 33(2)
[Dep. Zool. & Wildl. Sci., 101 Cary Hall, Auburn Univ., Auburn, AL 36849]

PHYSIOLOGY (CONTINUED)

88-001467 Himick, B. and J. G. Eales. INCREASED PLASMA GLUCOSE CAUSES ACUTE ELEVATIONS IN PLASMA T4 IN THE RAINBOW TROUT (*SALMO GAIRDNERI*). *Am. Zool.* 27(4):74A. 1987. Abstract only. FR 33(2)
[Univ. Manitoba, Winnipeg, MB, Canada]

88-001468 Hinckley, Sarah. THE REPRODUCTIVE BIOLOGY OF WALLEYE POLLOCK, *THERAGRA CHALCOGRAMMA*, IN THE BERING SEA, WITH REFERENCE TO SPAWNING STOCK STRUCTURE. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):481-498. 1987. FR 33(2)
[Northwest & Alaska Fish. Cent., NMFS, NOAA, 7600 Sand Point Way, N.E., Seattle, WA 98115]

88-001469 Hirata, T.; A. Goto and F. Yamazaki. INDIVIDUAL GROWTH AND SMOLTIFICATION OF JUVENILE MASU SALMON, *ONCORHYNCHUS MASOU* BREVOORT, UNDER REARING CONDITIONS. *J. Fish Biol.* 32(1):77-84. 1988. FR 33(2)
[Lab. Embryol. & Genet., Fac. Fish., Hokkaido Univ., Hakodate, Hokkaido 041, Japan]

88-001470 Hodges, M. C. and H. C. Lane. SERUM-RELATED DEPRESSION OF PHAGOCYTIC ACTIVITY OF MACROPHAGES FROM RAINBOW TROUT. *Am. Zool.* 27(4):134A. 1987. Abstract only. FR 33(2)
[Wake Forest Univ., Winston-Salem, NC] *Salmo gairdneri*.

88-001471 Hoffman, Karen. DAYTIME CHANGES IN OVARIAN FACTORS OF THE SADDLEBACK WRASSE, *THALASSOMA DUPERREY*. *Pac. Sci.* 39(4):385-386. 1988. Abstract Only. FR 33(2)

88-001472 Hoffman, Karen. HISTOLOGICAL EVIDENCE OF TEMPORAL CHANGES IN THE OVARIES OF THE SADDLEBACK WRASSE *THALASSOMA DUPERREY*. *Pac. Sci.* 40(1-4):117-118. 1986. Abstract only. FR 33(2)
[Univ. Hawaii, Dep. Zool., Honolulu]

88-001473 Hogstrand, Christer and Carl Haux. EVALUATION OF THE SEAWATER CHALLENGE TEST ON SEA TROUT (*SALMO TRUTTA* L.). *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 110. 1986. Abstract only. FR 33(2)
[Dep. Zoophysiol., Univ. Gothenburg, P.O. Box 250 59, S-400 31 Gothenburg, Sweden]

88-001474 Hopkins, Carl D. SOCIAL COMMUNICATION IN THE AQUATIC ENVIRONMENT. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors*. p. 233-268. 1988. FR 33(2)
[Sect. Neurobiol. & Behav., Cornell Univ., Ithaca, NY 14853]

88-001475 Hossain, Amjad and Hiran M. Dutta. DIFFERENTIAL RESPONSES OF THE FISH G.I. TRACT AND TRACT APPENDAGES TO STARVATION. *Ohio J. Sci.* 88(2):7. 1988. Abstract only. FR 33(2)
[Dep. Biol. Sci., Kent State Univ., Kent, OH 44242] *Lepomis macrochirus*.

88-001476 Howard, James N. and Gregory A. Ahearn. PARALLEL ANTIPORT MECHANISMS FOR Na^+ AND Cl^- TRANSPORT IN HERBIVOROUS TELEOST INTESTINE. *J. Exp. Biol.* 135:65-76. 1988. FR 33(2)
[Dep. Zool., 2538 The Mall, Univ. Hawaii Manoa, Honolulu 96822] *Oreochromis mossambicus*.

PHYSIOLOGY (CONTINUED)

88-001477 Howard, James. SALT TRANSPORT MECHANISMS IN BRUSH-BORDER MEMBRANE VESICLES OF TILAPIA INTESTINE. *Pac. Sci.* 40(1-4):119. 1986. Abstract only. FR 33(2)
[Univ. Hawaii, Dep. Zool., Honolulu] *Oreochromis mossambicus.*

88-001478 Howerton, Robert D. CHANGES IN GROWTH RATE OF TILAPIA, *OREOCHROMIS MOSSAMBICUS*, FOLLOWING TREATMENT WITH THE HORMONES TRIIODOTHYRONINE (T3) AND TESTOSTERONE. *Pac. Sci.* 40(1-4):119-120. 1986. Abstract only. FR 33(2)
[HIMB/Univ. Hawaii, Dep. Zool., Honolulu]

88-001479 Hsiao, S.-M. and A. H. Meier. OVARIAN ACTIVITY DURING THE SEMILUNAR SPAWNING CYCLE OF THE GULF KILLIFISH *FUNDULUS GRANDIS*. *Am. Zool.* 27(4):71A. 1987. Abstract only. FR 33(2)
[La. State Univ., Baton Rouge]

88-001480 Hsiao, Shyh-Min and Albert H. Meier. SEMILUNAR OVARIAN ACTIVITY OF THE GULF KILLIFISH, *FUNDULUS GRANDIS*, UNDER CONTROLLED LABORATORY CONDITIONS. *Copeia* 1988(1):188-195. 1988. FR 33(2)
[Dep. Zool. & Physiol., La. State Univ., Baton Rouge 70803]

88-001481 Huang, Yuan-Ping and Richard E. Peter. EVIDENCE FOR A GONADOTROPIN-RELEASING HORMONE BINDING PROTEIN IN GOLDFISH (*CARASSIUS AURATUS*) SERUM. *Gen. Comp. Endocrinol.* 69(2):308-316. 1988. FR 33(2)
[Dep. Zool., Univ. Alberta, Edmonton, AB, Canada T6G 2E9]

88-001482 Hughes, Steven G. EFFECT OF DIETARY PROPYLENE GLYCOL ON GROWTH, SURVIVAL, HISTOLOGY, AND CARCASS COMPOSITION OF ATLANTIC SALMON. *Prog. Fish-Cult.* 50(1):12-15. 1988. FR 33(2)
[Monell Chem. Senses Cent., 3500 Market St., Philadelphia, PA 19104] *Salmo salar.*

88-001483 Imai, Chifumi and Syoiti Tanaka. EFFECT OF SEA WATER TEMPERATURE ON EGG SIZE OF JAPANESE ANCHOVY. *Nippon Suisan Gakkaishi* 53(12):2169-2178. 1987. FR 33(2)
[Dep. Fish., Shimonoseki Univ. Fish., Shimonoseki 759-65, Japan] *Engraulis mordax.*

88-001484 Isaac-Nahum, V. J.; R. de D. Cardoso; G. Servo and C. L. del B. Rossi-Wongtschowski. ASPECTS OF THE SPAWNING BIOLOGY OF THE BRAZILIAN SARDINE, *SARDINELLA BRASILIENSIS* (STEINDACHNER, 1879), (CLUPEIDAE). *J. Fish Biol.* 32(3):383-396. 1988. FR 33(2)
[Inst. Meereskunde, Dusterbrooker Weg 20, 2300 Kiel, West Germany]

88-001485 Iwata, Munehico; Shichiko Komatsu; Sanae Hasegawa; Tsuyoshi Ogasawara and Tetsuya Hirano. INCONSISTENT EFFECT OF THYROID HORMONE ALTERATION ON SEAWATER ADAPTABILITY OF FRY OF THE CHUM SALMON. *Nippon Suisan Gakkaishi* 53(11):1969-1973. 1987. In English. FR 33(2)
[Otsuchi Mar. Res. Cent., Ocean Res. Inst., Univ. Tokyo, Otsuchi, Iwate 028-11, Japan]

88-001486 Jensen, J. O. T. COMBINED EFFECTS OF GAS SUPERSATURATION AND DISSOLVED OXYGEN LEVELS ON STEELHEAD TROUT (*SALMO GAIRDNERI*) EGGS, LARVAE, AND FRY. *Aquaculture* 68(2):131-139. 1988. FR 33(2)
[Dep. Fish. & Oceans, Fish. Res. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

PHYSIOLOGY (CONTINUED)

88-001487 Johnston, Ian A. and Jeff Dunn. TEMPERATURE ACCLIMATION AND METABOLISM IN ECTOTHERMS WITH PARTICULAR REFERENCE TO TELEOST FISH. *Symp. Soc. Exp. Biol.* No. 41. p. 67-93. 1987. FR 33(2)
[Gatty Mar. Lab., Dep. Physiol. & Pharmacol., Univ. St. Andrews, St. Andrews, Fife KY16 8LB, Scotland]

88-001488 Junghahn, Ilse and Karl Jurss. EFFECTS OF FEEDING AND SALINITY ON PROTEIN SYNTHESIS IN THE WHITE EPAXIAL MUSCLE OF THE RAINBOW TROUT (*SALMO GAIRDNERI* RICHARDSON). *Comp. Biochem. Physiol. B Comp. Biochem.* 89(2):329-333. 1988. FR 33(2)
[Central Inst. Molecular Biol., Dep. Cell Physiol., Acad. Sci., 1115 Berlin-Buch, East Germany]

88-001489 Kahn, Bernd; Kristin S. Turgeon; David K. Martini; Susan J. Dunkerly; Rifaat M. K. El-Shinawy and Marcia D. Wilson. SPECIFIC ACTIVITY MEASUREMENTS TO DETERMINE PHOSPHORUS TURNOVER IN BLUEGILL, *LEPOMIS MACROCHIRUS*. *Hydorbiologia* 157(1):3-11. 1988. FR 33(2)
[Nuclear Eng. & Health Physics Program, School Mech. Eng., Ga. Inst. Technol., Atlanta 30332]

88-001490 Kaneko, Toyoji; Robert A. Fraser; Teresa Labedz; Stephen Harvey; Floris P. J. G. Lafeber and Peter K. T. Pang. CHARACTERIZATION OF ANTISERA RAISED AGAINST HYPOCALCIN (TELEOCALCIN) PURIFIED FROM CORPUSCLES OF STANNIUS OF RAINBOW TROUT, *SALMO GAIRDNERI*. *Gen. Comp. Endocrinol.* 69(2):238-245. 1988. FR 33(2)
[Dep. Physiol., Univ. Alberta, Edmonton, AB, Canada T6G 2H7]

88-001491 Kashiwagi, Masaaki; Hideyuki Sakaki; Takeo Takahashi and Toshio Iwai. A RELATIONSHIP BETWEEN EGG SIZE AND HATCHING RATE IN JAPANESE WHITING *SILLAGO JAPONICA*. *Nippon Suisan Gakkaishi* 53(12):2105-2110. 1987. In English. FR 33(2)
[Fac. Fish., Mie Univ., 2-80, Edobashi, Tsu 514, Japan]

88-001492 Kelley, Christopher D. CYTOCHEMICAL EVIDENCE FOR THE INVOLVEMENT OF CORTICAL ALVEOLI DURING PREOVULATORY HYDRATION OF OOCYTES IN A TELEOST FISH. *Pac. Sci.* 39(4):387. 1988. Abstract Only. FR 33(2)
Holacanthus tricolor.

88-001493 Kestemont, P. [THE REPRODUCTIVE CYCLE OF THE GUDGEON, *GOBIO GOBIO* L. - 1. SEASONAL VARIATION IN THE HISTOLOGY OF OVARY.] *J. Appl. Ichthyol.* 3(4):145-157. 1987. In French with English and German summ. FR 33(2)
[Unite Ecol. Eaux Douces, 61 rue Bruxelles, B 5000 Namur, Belgium]

88-001494 Khan, I. A. and K. P. Joy. DIURNAL VARIATION IN, AND EFFECTS OF LONG PHOTOPERIOD-RAISED TEMPERATURE AND MELATONIN ON HYPOTHALAMIC MONOAMINE OXIDASE ACTIVITY IN THE TELEOST *CHANNA PUNCTATUS*. *J. Interdiscip. Cycle Res.* 18(4):287-292. 1987. FR 33(2)
[Joy: Cent. Adv. Study Zool., Banaras Hindu Univ., Varanasi-221 005, India]

88-001495 King, Judy Ann Curtis. ADAPTATION OF STRIPED BASS TO SEA WATER FOLLOWING DIRECT TRANSFER FROM FRESHWATER: MORPHOLOGICAL, BIOCHEMICAL, AND PHYSIOLOGICAL PARAMETERS. *Ph.D. dissertation, E. Tenn. State Univ.* 193p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(6):1617. 1987. FR 33(2)
Morone saxatilis

PHYSIOLOGY (CONTINUED)

88-001496 Kline, L. W.; T. Kaneko; C. W. Cooper and P. K. T. Pang. THE PRESENCE OF A SALMON CALCITONIN-LIKE SUBSTANCE IN FISH PITUITARY GLAND. *Am. Zool.* 27(4):97A. 1987. Abstract only. FR 33(2)
[Dep. Physiol., Univ. Alberta, Edmonton, AB, Canada]

88-001497 Kobayashi, Makito; Katsumi Aida and Isao Hanyu. HORMONE CHANGES DURING THE OVULATORY CYCLE IN GOLDFISH. *Gen. Comp. Endocrinol.* 69(2):301-307. 1988. FR 33(2)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Bunkyo, Tokyo 113, Japan]

88-001498 Koester, D. M. IDENTIFICATION OF THE ELECTROMOTONEURONS INNERVATING THE ELECTRIC ORGAN OF SKATES. *Am. Zool.* 27(4):26A. 1987. Abstract only. FR 33(2)
[Univ. New England, Biddeford, ME] *Raja erinacea, R. eglanteria,* and *R. ocellata.*

88-001499 Kormanik, G. A. NITROGEN BUDGET IN PRENATAL PUPS OF THE DOGFISH (*SQUALUS ACANTHIAS* L.). *Am. Zool.* 27(4):139A. 1987. Abstract only. FR 33(2)
[Univ. N.C., Asheville]

88-001500 Korwin-Kossakowski, M. LARVAL DEVELOPMENT OF CARP, *CYPRINUS CARPIO* L., IN ACIDIC WATER. *J. Fish Biol.* 32(1):17-26. 1988. FR 33(2)
[Inland Fish. Inst., Dep. Pond Fish., Zabieniec, 05-500 Piaseczno, Poland]

88-001501 Kramer, C. R.; S. Koulish and P. L. Bertacchi. THE EFFECTS OF TESTOSTERONE IMPLANTS ON OVARIAN MORPHOLOGY IN THE BLUEHEAD WRASSE, *THALASSOMA BIFASCIATUM* (BLOCH) (TELEOSTEI: LABRIDAE). *J. Fish Biol.* 32(3):397-407. 1988. FR 33(2)
[Dep. Biol., Coll. Staten Island, City Univ. N.Y., 50 Bay St., Staten Island 10301]

88-001502 Kristinsson, Julius B. and Bjarni Jonsson. EFFECTS OF TEMPERATURE AND PHOTOPERIOD ON BIMODAL GROWTH AND SMOLTIFICATION IN JUVENILE ATLANTIC SALMON. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 111. 1986. Abstract only. FR 33(2)
[Univ. Iceland, Dep. Physiol., Grensasvegur 12, 108 Reykjavik, Iceland] *Salmo salar.*

88-001503 Kulikova, N. I. and V. N. Fedulina. [THE GOLDEN MULLET *LIZA AURATA* (RISSO) RESPONSE ON THE PITUITARY INJECTIONS UNDER DIFFERENT CONDITIONS OF MAINTENANCE.] *Biol. Nauki (Mosc.)* 288(12):59-66. 1987. In Russian with English summ. FR 33(2)

88-001504 Kunze, Peter and Hans-Ulrich Wezstein. APOMORPHINE AND HALOPERIDOL INFLUENCE ELECTRIC BEHAVIOUR OF A MORMYRID FISH. *Z. Naturforsch. Sect. C Biosci.* 43(1/2):105-107. 1988. FR 33(2)
[Biol. Inst. Univ. Stuttgart, Abteiling Tierphysiol., Pfaffenwaldring 57, D-7000 Stuttgart 80, West Germany] *Gnathonemus petersii.*

88-001505 Kurokawa, Makoto and Kiyoaki Kuwasawa. MULTIMODAL INHIBITORY INNERVATION OF THE GILL OF *APLYSIA JULIANA. J. Comp. Physiol. A Sens. Neural Behav. Physiol.* 162(4):533-541. 1988. FR 33(2)
[Pharmacol. Div., Meiji Inst. Health Sci., 540 Naruda, Odawara 250, Japan]

88-001506 LaFleur, Gary J. and Peter Thomas. INORGANIC ION CHANGES IN ATLANTIC CROAKER (*MICROPOGONIAS UNDULATUS*) OOCYTES DURING HYDRATION. *Am. Zool.* 27(4):131A. 1987. Abstract only. FR 33(2)
[Univ. Tex. Mar. Sci. Inst., Port Aransas]

PHYSIOLOGY (CONTINUED)

88-001507 Lai, N. C. AFFERENT BRANCHIAL BLOOD FLOW IN SHARKS. *Am. Zool.* 27(4):117A. 1987. Abstract only. FR 33(2)
[Scripps Inst. Oceanogr., UCSD, La Jolla, CA] *Squalus, Scyliorhinus, Heterodontus,* and *Prionace glauca.*

88-001508 Laurila, Sari; Jorma Piironen and Ismo J. Holopainen. NOTES ON EGG DEVELOPMENT AND LARVAL AND JUVENILE GROWTH OF CRUCIAN CARP (*CARASSIUS CARASSIUS* (L.)). *Ann. Zool. Fenn.* 24(4):315-321. 1987. FR 33(2)
[Finnish Game & Fish Res. Inst., Fish. Div., Box 193, SF-00131, Helsinki, Finland]

88-001509 Lee, Taek Yuil and Sunng Yeon Kim. [EXPERIMENTAL STUDIES ON THE MECHANISM OF REPRODUCTIVE CYCLE IN THE BLUEGILL, *LEPOMIS MACROCHIRUS.*] *Bull. Korean Fish. Soc.* 20(6):489-50. 1987. In Korean with English summ. FR 33(2)
[Dep. Mar. Biol., Natl. Fish. Univ. Pusan, Pusan, South Korea]

88-001510 Lee, Young Don and Taek Yuil Lee. [STUDIES ON THE REPRODUCTIVE CYCLE OF DAMSELFISH, *CHROMIS NOTATUS* (TEMMINCK ET SCHLEGEL). *Bull. Korean Fish. Soc.* 20(6):509-519. 1987. In Korean with English summ. FR 33(2)
[Dep. Mar. Biol., Natl. Fish. Univ. Pusan, Nam-gu, Pusan, 608 South Korea]

88-001511 Lehtinen, Steven F. and James B. Layzer. REPRODUCTIVE CYCLE OF THE PLAINS MINNOW, *HYBOGNATHUS PLACITUS* (CYPRINIDAE), IN THE CIMARRON RIVER, OKLAHOMA. *Southwest. Nat.* 33(1):27-33. 1988. FR 33(2)
[Dep. Biol., Luther Coll., Decorah, IA 52101]

88-001512 Lin, G. L.; J. Bertolini; N. W. Miller and L. W. Clem. LONG TERM CELL LINES OF CHANNEL CATFISH LYMPHOCYTES. *Am. Zool.* 27(4):98A. 1987 Abstract only. FR 33(2)
[Univ. Miss. Med. Cent., Jackson] *Ictalurus punctatus.*

88-001513 Liu Rongzhen and Wang Hao. SOME BIOCHEMICAL CHANGES DURING EARLY DEVELOPMENT OF *ARISTICHTHYS NOBILIS. Zool. Res.* 8(3):287-294. 1987. In Chinese with English summ. FR 33(2)
[Dep. Biol., Univ. Nanjing, Nanjing, China]

88-001514 Lowell, W. R.; J. B. Graham; D. C. Abel and R. Shabetai. HEART ALLOMETRY AND OXYGEN TRANSPORT IN ELASMOBRANCHS. *Am. Zool.* 27(4):117A. 1987. Abstract only. FR 33(2)
[Scripps Inst. Oceanogr. & VAMC, La Jolla, CA] *Negaprion, Triakis,* and *Isurus.*

88-001515 Lowery, M. S. CHANGES IN RNA/DNA AND MUSCLE PROTEIN COMPOSITION OF DOVER SOLE, *MICROSTOMUS PACIFICUS,* DURING MIGRATION TO DEEP WATER. *Am. Zool.* 27(4):55A. 1987. Abstract only. FR 33(2)
[Scripps Inst. Oceanogr., La Jolla, CA 92039]

88-001516 Luczynski, Miroslaw. [THERMAL CONDITIONS OF THE EARLY ONTOGENY OF COREGONINAE.] *Acta Acad. Agric. Tech. Olst.* 306(14)(Suppl. D):3-55. 1987. In Polish with Russian and English summ. FR 33(2)
Coregonus albula and *C. lavaretus.*

88-001517 MacLatchy, D. L. and J. G. Eales. TESTOSTERONE STIMULATES T4 TO T3 CONVERSION IN ARCTIC CHARR. *Am. Zool.* 27(4):79A. 1987. Abstract only. FR 33(2)
[Univ. Manitoba, Winnipeg, MB, Canada] *Salvelinus alpinus.*

PHYSIOLOGY (CONTINUED)

88-001518 Manteyfel, Yu. B.; V. M. Vinogradova and V. N. Kolyadenko. DETERMINATION OF THE SENSITIVITY OF GUPPY, *POECILIA RETICULATA*, TO CHEMICAL STIMULI. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):47-55. 1987. FR 33(2)
[Inst. Evol. Morphol. & Anim. Ecol., Acad. Sci. USSR-IEMEZH, Moscow, USSR]

88-001519 Martinez, I.; G. Viscor and J. Palomeque. EFFECTS OF TEMPERATURE, OXYGEN AND CARBON DIOXIDE ON OSMOTIC FRAGILITY OF CARP, *CYPRINUS CARPIO* L., ERYTHROCYTES. *J. Fish Biol.* 32(2):247-252. 1988. FR 33(2)
[Unidad Fisiol., Dep. Bioquim. & Fisiol., Univ. Barcelona, Avgda. Diagonal 645, E-03028, Barcelona, Spain]

88-001520 Marui, T.; Y. Kasahara; J. S. Kanwal; J. Caprio and S. Kiyohara. NEURAL CONNECTIONS OF THE FACIAL AND VAGAL LOBES IN THE JAPANESE SEA CATFISH, *PLOTOSUS ANGUILLARIS*. *Ann. N.Y. Acad. Sci.* 510:466-467. 1987. FR 33(2)
[Dep. Oral Physiol., Kagoshima Univ. Dental School, Kagoshima 890, Japan]

88-001521 Matty, Allen J. THE EFFECT OF TEMPERATURE AND THYROID HORMONES ON FISH PHYSIOLOGY AND BIOCHEMISTRY. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 113. 1986. Abstract only. FR 33(2)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

88-001522 Mazhirina, G. P. and A. A. Filin. GONAD DEVELOPMENT AND SPAWNING OF *NOTOSCOPELUS KROYERI* IN THE NORTHWEST ATLANTIC, WITH OBSERVATIONS ON OTHER BIOLOGICAL CHARACTERISTICS. *J. Northwest Atl. Fish. Sci.* 7(2):99-106. 1987. FR 33(2)
[Polar Res. Inst. Mar. Fish. & Oceanogr., 6 Kipovich St., Murmansk, USSR]

88-001523 Mazik, Patricia M.; T. M. Brandt and J. R. Tomasso. EFFECTS OF DIETARY VITAMIN C ON GROWTH, CAUDAL FIN DEVELOPMENT, AND TOLERANCE OF AQUACULTURE-RELATED STRESSORS IN CHANNEL CATFISH. *Prog. Fish-Cult.* 49(1):13-16. 1987. FR 33(2)
[Dep. Biol., Memphis State Univ., Memphis, TN 38152] *Ictalurus punctatus*.

88-001524 McCallum, Ian M.; Kimberly M. Cheng and B. E. March. CAROTENOID PIGMENTATION IN TWO STRAINS OF CHINOOK SALMON *(ONCORHYNCHUS TSHAWYTSCHA)* AND THEIR CROSSES. *Aquaculture* 67(3/4):291-300. 1987. FR 33(2)
[March: Dep. Anim. Sci., Univ. British Columbia, Vancouver, BC, Canada V6T 2A2]

88-001525 McCormick, Stephen D.; Richard L. Saunders; Eugene B. Henderson and Paul R. Harmon. PHOTOPERIOD CONTROL OF PARR-SMOLT TRANSFORMATION IN ATLANTIC SALMON *(SALMO SALAR)*: CHANGES IN SALINITY TOLERANCE, GILL Na^+, K^+-ATPase ACTIVITY, AND PLASMA THYROID HORMONES. *Can. J. Fish. Aquat. Sci.* 44(8):1462-1468. 1987. In English with French summ. FR 33(2)
[Dep. Zool., Univ. Calif., Berkeley 94720]

88-001526 McGurk, Michael Douglas. THE ROLE OF STARVATION IN THE POPULATION DYNAMICS OF LARVAL PACIFIC HERRING, *Clupea harengus pallasi*. *Ph.D. dissertation, Univ. British Columbia (Canada)* 1986. From Diss. Abstr. Int. B Sci. Eng. 48(9):2540-2541. 1988. FR 33(2)

88-001527 McPherson, R.; M. S. Greeley, Jr. and R. A. Wallace. THE ROLE OF YOLK PROTEOLYSIS IN THE HYDRATION OF *FUNDULUS HETEROCLITUS* OOCYTES DURING MEIOTIC MATURATION *Am. Zool.* 27(4):91A. 1987. Abstract only. FR 33(2)
[Whitney Lab., Univ. Fla., St. Augustine]

PHYSIOLOGY (CONTINUED)

88-001528 Melancon, Mark J.; Robert L. Binder and John J. Lech. ENVIRONMENTAL INDUCTION OF MONOOXYGENASE ACTIVITY IN FISH. *In: Toxic Contaminants and Ecosystem Health: A Great Lakes Focus. Marlene S. Evans, editor.* p. 215-236. 1988. FR 33(2)
[Dep. Pharmacol. & Toxicol., Med. Coll., Milwaukee, WI 53201]

88-001529 Milligan, C. Louise and D. Gordon McDonald. *IN VIVO* LACTATE KINETICS AT REST AND DURING RECOVERY FROM EXHAUSTIVE EXERCISE IN COHO SALMON *(ONCORHYNCHUS KISUTCH)* AND STARRY FLOUNDER *(PLATICHTHYS STELLATUS). J. Exp. Biol.* 135:119-131. 1988. FR 33(2)
[Dep. Biol. Sci., Simon Fraser Univ., Burnaby, BC, Canada V5A 1S6]

88-001530 Ming, Frederick Warren. VARIATIONS OF BODY COMPOSITION, GROWTH AND EFFICIENCY OF NUTRIENT UTILIZATION AMONG WILD AND DOMESTICATED STRAINS OF RAINBOW TROUT, *SALMO GAIRDNERI. Ph.D. dissertation, Univ. British Columbia (Canada)* 1986. From Diss. Abstr. Int. B Sci. Eng. 48(9):2507-2508. 1988. FR 33(2)

88-001531 Mirza, Jobed A. and William L. Shelton. INDUCTION OF GYNOGENESIS AND SEX REVERSAL IN SILVER CARP. *Aquaculture* 68(1):1-14. 1988. FR 33(2)
[Shelton: Zoo Dep., Univ. Okla., Norman 73019]

88-001532 Morin, P.-P.; J. J. Dodson and F. Y. Dore. LABORATORY IDENTIFICATION OF A SENSITIVE PERIOD FOR OLFACTORY IMPRINTING IN YOUNG ATLANTIC SALMON. *Am. Zool.* 27(4):77A. 1987. Abstract only. FR 33(2)
[Laval Univ., Laval, PQ, Canada] *Salmo salar.*

88-001533 Mosconi-Bac, N. HEPATIC DISTURBANCES INDUCED BY AN ARTIFICIAL FEED IN THE SEA BASS *(DICENTRARCHUS LABRAX)* DURING THE FIRST YEAR OF LIFE. *Aquaculture* 67(1-2):93-99. 1987. FR 33(2)
[Mar. Biol. Lab., Univ. Perpignan, Ave. Villeneuve, F-66025 Perpignan, France]

88-001534 Mudarris, M. and B. Austin. QUANTITATIVE AND QUALITATIVE STUDIES OF THE BACTERIAL MICROFLORA OF TURBOT, *SCOPHTHALMUS MAXIMUS* L., GILLS. *J. Fish Biol.* 32(2):223-229. 1988. FR 33(2)
[Dep. Brewing & Biol. Sci., Heriot-Watt-Univ., Chambers St., Edinburgh EH1 1HX, Scotland]

88-001535 Mugiya, Yasuo. EFFECTS OF PHOTOPERIODS ON THE FORMATION OF OTOLITH INCREMENTS IN THE EMBRYONIC AND LARVAL RAINBOW TROUT *SALMO GAIRDNERI. Nippon Suisan Gakkaishi* 53(11):1979-1984. 1987. In English. FR 33(2)
[Fac. Fish., Hokkaido Univ., Minato-3, Hakodate 041, Japan]

88-001536 Nakari, T.; A. Soivio and S. Pesonen. EFFECTS OF AN ADVANCED PHOTOPERIOD CYCLE ON THE GONADAL DEVELOPMENT AND SPAWNING TIME OF 2-YEAR-OLD *SALMO GAIRDNERI* R. REARED IN EARTH PONDS UNDER EXTREME ANNUAL WATER TEMPERATURES. *Aquaculture* 67(3/4):369-384. 1987. FR 33(2)
[Dep. Zool., Div. Physiol., Univ. Helsinki, Arkadiank 7, SF-00100 Helsinki, Finland]

88-001537 New, John Gerard. SENSORY PROCESSING IN THE MEDULLARY ELECTROSENSORY NUCLEUS OF THE LITTLE SKATE, *RAJA ERINACEA. Ph.D. dissertation, Wesleyan Univ.* 221p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(9):2527. 1988. FR 33(2)

PHYSIOLOGY (CONTINUED)

88-001538 Northcutt, R. Glenn. SENSORY AND OTHER NEURAL TRAITS AND THE ADAPTATIONIST PROGRAM: MACKERELS OF SAN MARCO? *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 869-883. 1988. FR 33(2)
[Neurobiol Unit., Scripps Inst. Oceanogr., Univ. Calif. San Diego, La Jolla 92093]

88-001539 Ojha, Jagdish; N. K. Singh and T. K. Ghosh. BIMODAL OXYGEN UPTAKE IN RELATION TO BODY WEIGHT IN A FRESH-WATER AIR-BREATHING FISH, *COLISA (=TRICHOGASTER) FASCIATUS* (BLOCH & SCHNEIDER). *Arch. Hydrobiol.* 111(3):475-480. 1988. FR 33(2)
[Bhagalpur Univ., Dep. Zool., Bhagalpur-812007, India]

88-001540 Ostrowski, Anthony C. and Donald L. Garling, Jr. CHANGES IN DIETARY PROTEIN TO METABOLIZABLE ENERGY NEEDS OF 17α-METHYLTESTOSTERONE TREATED JUVENILE RAINBOW TROUT. *J. World Aquacult. Soc.* 18(2):61-70. 1987. FR 33(2)
[Garling: Dep. Fish. & Wildl., Mich. State Univ., East Lansing, 48824] *Salmo gairdneri.*

88-001541 Ostrowski, Anthony C. and Donald L. Garling, Jr. EFFECT OF 17α-METHYLTESTOSTERONE TREATMENT AND WITHDRAWAL ON GROWTH AND DIETARY PROTEIN UTILIZATION OF JUVENILE RAINBOW TROUT FED PRACTICAL DIETS VARYING IN PROTEIN LEVEL. *J. World Aquacult. Soc.* 18(2):71-77. 1987. FR 33(2)
[Garling: Dep. Fish & Wildl., Mich. State Univ., East Lansing, 48824] *Salmo gairdneri.*

88-001542 Overholtz, William J. FACTORS RELATING TO THE REPRODUCTIVE BIOLOGY OF GEORGES BANK HADDOCK *(MELANOGRAMMUS AEGLEFINUS)* IN 1977-83. *J. Northwest. Atl. Fish. Sci.* 7(2):145-154. 1987. FR 33(2)
[NMFS, Northeast Fish. Cent., Woods Hole, MA 02543]

88-001543 Pandey, Amaresh Chandra. THE RELATIONSHIP BETWEEN THE OVARY AND THE CORPUSCLES OF STANNIUS OF THE CATFISH *OMPOK BIMACULATUS* (BLOCH). *Gen. Comp. Endocrinol.* 69(3):467-470. 1988. FR 33(2)
[North-East. Hill Univ., Mizoram Campus, Pachunga Univ. Coll., Dep. Zool., Aizawl-796 001, Mizoram, India]

88-001544 Pankhurst, N. W. and A. M. Conroy. SIZE-FECUNDITY RELATIONSHIPS IN THE ORANGE ROUGHY, *HOPLOSTETHUS ATLANTICUS. N.Z. J. Mar. Freshwater Res.* 21(2):295-300. 1987. FR 33(2)
[Fish. Res. Cent., Minist. Agric. & Fish., P.O. Box 297, Wellington, New Zealand]

88-001545 Park, Yang-Sung and Yong Uk Kim. [STUDIES ON THE LARVAE AND JUVENILES OF FLYING FISH, *PROGNICHTHYS AGOO* (TEMMINCK ET SCHLEGEL) (PISCES, EXOCOETIDAE).] *Bull. Korean Fish. Soc.* 20(5):447-456. 1987. In Korean with English summ. FR 33(2)
[Dep. Mar. Biol., Natl. Fish. Univ., Nam-gu, Pusan 608, South Korea]

88-001546 Partridge, J. C.; S. N. Archer and J. N. Lythgoe. VISUAL PIGMENTS IN THE INDIVIDUAL RODS OF DEEP-SEA FISHES. *J. Comp. Physiol. A Sens. Neural Behav. Physiol.* 162(4):543-550. 1988. FR 33(2)
[Dep. Zool., Univ. Bristol, Woodland Rd., Bristol BS8 1UG, England] *Bathylagus bericoides* and *Malacocephalus laevis.*

PHYSIOLOGY (CONTINUED)

88-001547 Patino, Reynaldo and Carl B. Schreck. SPONTANEOUS AND ACTH-INDUCED INTERRENAL STEROIDOGENESIS IN JUVENILE COHO SALMON *(ONCORHYNCHUS KISUTCH)*: EFFECTS OF MONOVALENT IONS AND OSMOLALITY *IN VITRO*. *Gen. Comp. Endocrinol.* 69(3):416-423. 1988. FR 33(2)
[Coop. Fish. Res. Unit, Oreg. State Univ., Corvallis 97331]

88-001548 Patzner, Robert A. and Margit Seiwald. THE REPRODUCTION OF *BLENNIUS PAVO* (TELEOSTEI, BLENNIIDAE). VI. TESTICULAR CYCLE. *Zool. Anz.* 219(5/6):265-273. 1987. In English. FR 33(2)
[Zool. Inst., Univ. Salzburg, Hellbrunner Str. 34, A-5020 Salzburg, Austria]

88-001549 Pelster, B.; C. R. Bridges and M. K. Grieshaber. PHYSIOLOGICAL ADAPTATIONS OF THE INTERTIDAL ROCKPOOL TELEOST *BLENNIUS PHOLIS* L., TO AERIAL EXPOSURE. *Respir. Physiol.* 7(3):355-374. 1988. FR 33(2)
[Inst. Physiol., Ruhr-Univ. Bochum., Universitatstr. 150, 4630 Bochum, West Germany]

88-001550 Pelster, B.; H. Kobayashi and P. Scheid. SOLUBILITY OF NITROGEN AND ARGON IN EEL WHOLE BLOOD AND ITS RELATIONSHIP TO pH. *J. Exp. Biol.* 135:243-252. 1988. FR 33(2)
[Inst. Physiol., Ruhr-Univ., Bochum, West Germany]

88-001551 Pennec, J.-P.; C. S. Wardle; A. A. Harper and A. G. Macdonald. EFFECTS OF HIGH HYDROSTATIC PRESSURE ON THE ISOLATED HEARTS OF SHALLOW WATER AND DEEP SEA FISH; RESULTS OF *CHALLENGER* CRUISE 6B/85. *Comp. Biochem. Physiol. A Comp. Physiol.* 89(2):215-218. 1988. FR 33(2)
[Lab. Physiol. Anim., Univ. Bretagne Occidentale, 29287 Brest, France] *Anguilla anguilla, Gadus morhua, Mora moro, Coryphaenoides armatus,* and *Histiobranchus bathybius*.

88-001552 Perry, S. F.; P. J. Walsh; T. P. Mommsen and T. W. Moon. METABOLIC CONSEQUENCES OF HYPERCAPNIA IN THE RAINBOW TROUT, *SALMO GAIRDNERI*: β-ADRENERGIC EFFECTS. *Gen. Comp. Endocrinol.* 69(3):439-447. 1988. FR 33(2)
[Dep. Biol., Univ. Ottawa, 30 Somerset E., Ottawa, ON, Canada K1N 6N5]

88-001553 Platt, Christopher. EQUILIBRIUM IN THE VERTEBRATES: SIGNALS, SENSES, AND STEERING UNDERWATER. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 783-809. 1988. FR 33(2)
[Dep. Anat., Georgetown Univ. Schools Med. & Dentistry, Washington, DC]

88-001554 Plaza-Yglesias, Margarita; Miguel Laufer and Francisco C. Herrera. IONIC AND OSMOTIC REGULATION IN BLOOD, AQUEOUS HUMOR, GILLS AND RETINA IN THE EURYHALINE FISH, *EUGERRES PLUMIERI*. *Comp. Biochem. Physiol. A Comp. Physiol.* 89(3):377-382. 1988. FR 33(2)
[Lab. Ecofisiol. Anim., Cent. Biofisica & Bioquim., Inst. Venezolano Invest. Cient., Apdo. 21827, Caracas 1020A, Venezuela]

88-001555 Plisetskaya, E. M.; A. Sundby and A. Gorbman. UNORTHODOX INTERRELATIONS AMONG PANCREATIC ISLET HORMONES IN FISH. *Am. Zool.* 27(4):97A. 1987. Abstract only. FR 33(2)
[Univ. Wash., Seattle]

88-001556 Podushka, S. B.; I. V. Rudenko and A. A. Ivoilov. [THE STATE OF GONADS IN 17-YEAR-OLD STURGEONS REARED UNDER LABORATORY CONDITIONS.] *Biol. Nauki (Mosc.)* 287(11):76-82. 1987. In Russian with English summ. FR 33(2)
Acipenser gueldenstaedti and *A. baeri*.

PHYSIOLOGY (CONTINUED)

88-001557 Popper, Arthur N.; Peter H. Rogers; William M. Saidel and Mardi Cox. ROLE OF THE FISH EAR IN SOUND PROCESSING. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 687-710. 1988. FR 33(2)
[Dep. Anat. & Cell Biol., Georgetown Univ. Schools Med. & Dentistry, Washington, DC]

88-001558 Powell, K. A. and B. I. Baker. STRUCTURAL STUDIES OF NERVE TERMINALS CONTAINING MELANIN-CONCENTRATING HORMONE IN THE EEL, *ANGUILLA ANGUILLA. Cell Tissue Res.* 251(2):433-439. 1988. FR 33(2)
[Electron Optics Cent., School Material Sci., Univ. Bath, Bath BA2 7AY, England]

88-001559 Prentice, John A. and Peter Thomas. SUCCESSFUL SPAWNING OF ORANGEMOUTH CORVINA FOLLOWING INJECTION WITH DES-GLY^{10},[D-Ala^{6}]-LUTEINIZING HORMONE-RELEASING HORMONE (1-9) ETHYLAMIDE AND PIMOZIDE. *Prog. Fish-Cult.* 49(1):66-69. 1987. FR 33(2)
[Heart Hills Res. Stn., Parks & Wildl. Dep., Junction Star Rt., Box 62, Ingram, TX 78025] *Cynoscion xanthulus.*

88-001560 Price, Jeffrey L.; Brian B. Gourlie; Yuan Lin and Ru Chih C. Huang. INDUCTION OF WINTER FLOUNDER ANTIFREEZE PROTEIN MESSENGER RNA AT 4 C IN VIVO AND IN VITRO. *Physiol. Zool.* 59(6):679-695. 1986. FR 33(2)
[Huang: Dep. Biol., Johns Hopkins Univ., Baltimore, MD 21218] *Pseudopleuronectes americanus.*

88-001561 Raffeto, Nancy S. THE REPRODUCTIVE ECOLOGY OF A TAGGED POPULATION OF SMALLMOUTH BASS *(MICROPTERUS DOLOMIEUI)* IN NEBISH LAKE, WISCONSIN. *Ph.D. dissertation, Univ. Wis. (Madison).* 123p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(9):2541-2542. 1988. FR 33(2)

88-001562 Ramaballav, Roy and Asit Baran Das. SEASON-SPECIFIC EFFECTS OF STARVATION ON THE RATES OF OXYGEN CONSUMPTION AND AMMONIA-N EXCRETION OF *CHANNA PUNCTATUS* (BLOCH). *Indian J. Comp. Anim. Physiol.* 5(1):34-39. 1987. FR 33(2)
[Lab. Environ. Physiol., Dep. Zool., School Life Sci., Visva-Bharati Univ., Santiniketan 731 235, India]

88-001563 Raynard, Robert S. THERMAL COMPENSATION OF THE Na^+ PUMP OF RAINBOW TROUT *(SALMO GAIRDNERI)* ERYTHROCYTES. *Symp. Soc. Exp. Biol.* No. 41. p. 455-456. 1987. FR 33(2)
[Dep. Zool., Univ. Liverpool, Liverpool L69 3BX, England]

88-001564 Reddy, P. Konda; K. A. Gowrishankar and T. J. Varghese. EFFECT OF FEEDING 17 α-METHYLTESTOSTERONE AND DIETHYLSTILBESTROL ON THE GROWTH AND FOOD CONVERSION CHARACTERISTICS OF THE INDIAN MAJOR CARP, *LABEO ROHITA* (HAM.). *Indian J. Anim. Sci.* 57(12):1329-1332. 1987. FR 33(2)
[Zool. Dep., Natl. Univ. Singapore, Kent Ridge, Singapore 0511]

88-001565 Reshkin, Stephan J. BASOLATERAL GLUCOSE TRANSPORT IN THE INTESTINE OF THE TILAPIA *OREOCHROMIS MOSSAMBICUS. Pac. Sci.* 40(1-4):126-127. 1986. Abstract only. FR 33(2)
[Dep. Bot., Univ. Hawaii, Honolulu]

88-001566 Riazi, Ali and Lucie Fremont. SERUM VITELLOGENIN AND YOLK PROTEOLIPID COMPLEX COMPOSITION IN RELATION TO OVARIAN GROWTH IN RAINBOW TROUT *SALMO GAIRDNERI* (RICH.). *Comp. Biochem. Physiol. B Comp. Biochem.* 89(3):525-529. 1988. FR 33(2)
[Fremont: Stn. Res. Nutr., C.R.J.-I.N.R.A. 78350, Jouy-en-Josas, France]

PHYSIOLOGY (CONTINUED)

88-001567 Riazi, Ali; Lucie Fremont and Marie Therese Gozzelino. CHARACTERIZATION OF EGG YOLK PROTEINS FROM RAINBOW TROUT *SALMO GAIRDNERI* (RICH.). *Comp. Biochem. Physiol. B Comp. Biochem.* 89(2):399-407. 1988. FR 33(2)
[Fremont: Stn. Rech. Nutr., C.R.J.-I.N.R.A., 78350 Jouy-en-Josas, France]

88-001568 Riis-Vestergaard, J. PHYSIOLOGY OF TELEOST EMBRYOS RELATED TO ENVIRONMENTAL CHALLENGES. *Sarsia* 72(3-4):351-358. 1987. FR 33(2)
[Environ. Eng. Lab., Univ. Aalborg, Sohngaardsholmsvej, 57, DK-9000 Aalborg, Denmark]

88-001569 Robertson, L.; P. Thomas and C. R. Arnold. PLASMA CORTISOL AND SECONDARY STRESS RESPONSES OF CULTURED RED DRUM (*SCIAENOPS OCELLATUS*) TO SEVERAL TRANSPORTATION PROCEDURES. *Aquaculture* 68(2):115-130. 1988. FR 33(2)
[Thomas: Univ. Tex. Mar. Sci. Inst., Port Aransas 78373]

88-001570 Robertson, L.; P. Thomas; C. R. Arnold and J. M. Trant. PLASMA CORTISOL AND SECONDARY STRESS RESPONSES OF RED DRUM TO HANDLING, TRANSPORT, REARING DENSITY, AND A DISEASE OUTBREAK. *Prog. Fish-Cult.* 49(1):1-12. 1987. FR 33(2)
[Univ. Tex. Mar. Sci. Inst., Port Aransas 78373] *Sciaenops ocellatus.*

88-001571 Rosenblum, P. M.; T. A. Marchant; L. Smiley; K. L. Yu and R. E. Peter. SECRETION OF GnRH FROM GOLDFISH (*CARASSIUS AURATUS*) PARS DISTALIS FRAGMENTS *IN VITRO*. *Am. Zool.* 27(4):79A. 1987. Abstract only. FR 33(2)
[Univ. Alberta, Edmonton, AB, Canada]

88-001572 Sakaguchi, Morihiko; Michiyo Murata; Toshiko Daikoku and Shigeru Arai. EFFECTS OF DIETARY TAURINE ON TISSUE TAURINE AND FREE AMINO ACID LEVELS OF THE CHUM SALMON, *ONCORHYNCHUS KETA*, REARED IN FRESHWATER AND SEAWATER ENVIRONMENTS. *Comp. Biochem. Physiol. A Comp. Physiol.* 89(3):437-442. 1988. FR 33(2)
[Res. Inst. Food Sci., Kyoto Univ., Uji, Kyoto 611, Japan]

88-001573 Sanchez, Ramiro P. [STUDIES ON TIME-SPACE VARIATIONS IN THE DISTRIBUTIONAL PATTERNS OF *ENGRAULIS ANCHOITA* EGGS AND LARVAE, IN RELATION TO THE ASSESSMENT OF REPRODUCTION INTENSITY.] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 92-142. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001574 Sandnes, K.; O. Lie and R. Waagbo. NORMAL RANGES OF SOME BLOOD CHEMISTRY PARAMETERS IN ADULT FARMED ATLANTIC SALMON, *SALMO SALAR*. *J. Fish Biol.* 32(1):129-136. 1988. FR 33(2)
[Inst. Nutr., Dir. Fish., P.O. Box 4285, N-5013 Nygaardstangen, Bergen, Norway]

88-001575 Sangalang, Gloria B. and Harry C. Freeman. *IN VITRO* BIOSYNTHESIS OF 17α,20β-DIHYDROXY-4-PREGNEN-3-ONE BY THE OVARIES, TESTES, AND HEAD KIDNEYS OF THE ATLANTIC SALMON *SALMO SALAR*. *Gen. Comp. Endocrinol.* 69(3):406-415. 1988. FR 33(2)
[Halifax Fish. Res. Lab., P.O. Box 550, Halifax, NS, Canada B3J 2S7]

88-001576 Satchell, Geoffrey H. and Lavern J. Weber. THE CAUDAL HEART OF THE CARPET SHARK *CEPHALOSCYLLIUM ISABELLA*. *Physiol. Zool.* 60(6):692-698. 1987. FR 33(2)
[Dep. Physiol., Otago Med. School, Dunedin, New Zealand]

PHYSIOLOGY (CONTINUED)

88-001577 Sayer, M. D. J. AN INVESTIGATION OF THE PATTERN OF NITROGEN EXCRETION IN *BLENNIUS PHOLIS* (L.). *Comp. Biochem. Physiol. A Comp. Physiol.* 89(3):359-363. 1988. FR 33(2)
[Anim. Biol. Group, Mar. Sci. Lab., Menai Bridge, Anglesey, Gwynedd LL59 5EH, Wales]

88-001578 Schierwater, Bernd and Wolfgang Mrowka. FACTORS INFLUENCING OXYGEN CONSUMPTION IN THE CICHLID FISH *PSEUDOCRENILABRUS MULTICOLOR*. *Zool. Anz.* 219(5/6):305-312. 1987. In English. FR 33(2)
[Zool. Inst., Tech. Univ. Braunschweig, Pockelsstr. 10a, D-3300 Braunsweig, West Germany]

88-001579 Segner, H.; M. Linnenbach and R. Marthaler. TOWARDS A USE OF EPIDERMAL MUCOUS CELLS IN THE FIELD ASSESSMENT OF ACID STRESS IN FISH. *J. Appl. Ichthyol.* 3(4):187-190. 1987. In French with English and German summ. FR 33(2)
[Zool. Inst. I, Im Neuenheimer Feld 230, D-6900 Heidelberg, West Germany] *Salmo trutta*.

88-001580 Segner, Helmut; Patricia Burkhardt; Enrique M. Avila; Volker Storch and Jesus V. Juario. EFFECTS OF *CHORELLA*-FEEDING ON LARVAL MILKFISH, *CHANOS CHANOS*, AS EVIDENCED BY HISTOLOGICAL MONITORING. *Aquaculture* 67(1-2):113-116. 1987. FR 33(2)
[Zool. Inst. Univ. Heidelberg, Im Neuenheimer Feld 230, D-6900, Heidelberg, West Germany]

88-001581 Serigstad, Bjorn. OXYGEN UPTAKE OF DEVELOPING FISH EGGS AND LARVAE. *Sarsia* 72(3-4):369-371. 1987. FR 33(2)
[Inst. Mar. Res., P.O. Box 1870 Nordnes, N-5024 Bergen, Norway] *Gadus morhua* and *Hippoglossus hippoglossus*.

88-001582 Sheridan, M. A. EFFECTS OF CATECHOLAMINES ON GLUCOSE RELEASE FROM KING SALMON (*ONCORHYNCHUS TSCHAWYTSCHA*) LIVER INCUBATED *IN VITRO*. *Am. Zool.* 27(4):97A. 1987. Abstract only. FR 33(2)
[N.D. State Univ., Fargo]

88-001583 Shipman, B. N. and N. J. Smatresk. EXERCISE RECOVERY IN *LEPISOSTEUS OCULATUS*, AN AIR-BREATHING FISH. *Am. Zool.* 27(4):111A. 1987. Abstract only. FR 33(2)
[Univ. Tex., Arlington]

88-001584 Skiftesvik, Anne Berit and Ingvar Huse. BEHAVIOUR STUDIES OF COD LARVAE, *GADUS MORHUA* L. *Sarsia* 72(3-4):367-368. 1987. FR 33(2)
[Inst. Mar. Res., Austevoll Mar. Aquacult. Stn., N-5392 Storebo, Norway]

88-001585 Smatresk, N. J. VAGAL AFFERENT CONTROL OVER WATER AND AIR BREATHING PATTERNS IN *LEPISOSTEUS OCULATUS*, AN AIR-BREATHING FISH. *Am. Zool.* 27(4):111A. 1987. Abstract only. FR 33(2)
[Univ. Tex., Arlington]

88-001586 Smith, Carol J. EVIDENCE OF STEROIDOGENESIS IN POSTOVULATORY FOLLICLES OF THE TILAPIA *OREOCHROMIS MOSSAMBICUS*. *Pac. Sci.* 40(1-4):128. 1986. Abstract only. FR 33(2)
[Dep. Zool., Univ. Hawaii, Honolulu]

88-001587 Smith, R. J. F. and B. J. Lawrence. EFFECTS OF ACUTE EXPOSURE TO ACIDIFIED WATER ON THE BEHAVIORAL RESPONSE OF FATHEAD MINNOWS, *PIMEPHALES PROMELAS*, TO ALARM SUBSTANCE (SCHRECKSTOFF). *Environ.*

PHYSIOLOGY (CONTINUED)

88-001587 CONTINUED *Toxicol. Chem.* 7(4):329-335. 1988. FR 33(2)
[Dep. Biol., Univ. Saskatchewan, Saskatoon, SN, Canada S7N 0W0]

88-001588 Solberg, Tor S. and Snorre Tilseth. VARIATIONS IN GROWTH PATTERN AMONG YOLK-SAC LARVAE OF COD (*GADUS MORHUA L.*) DUE TO DIFFERENCES IN REARING TEMPERATURE AND LIGHT REGIME. *Sarsia* 72(3-4):347-349. 1987. FR 33(2)
[Inst. Mar. Res., P.O. Box 1870 Nordnes, N-5024 Bergen, Norway]

88-001589 Sorbera, Lisa and Ian P. Callard. MYOMETRIAL REGULATION IN ELASMOBRANCHS. *Am. Zool.* 27(4):80A. 1987. Abstract only. FR 33(2)
[Boston Univ., Boston, MA] *Squalus acanthias* and *Raja erinacea*.

88-001590 Sorensen, P. W. and N. W. Pankhurst. HISTOLOGICAL CHANGES IN THE GONAD, SKIN, INTESTINE AND OLFACTORY EPITHELIUM OF ARTIFICIALLY-MATURED MALE AMERICAN EELS, *ANGUILLA ROSTRATA* (LeSUEUR). *J. Fish Biol.* 32(2):297-307. 1988. FR 33(2)
[Dep. Zool., Univ. Alberta, Edmonton, AB, Canada T6G 2E9]

88-001591 Stabell, Ole B. INTRASPECIFIC PHEROMONE DISCRIMINATION AND SUBSTRATE MARKING BY ATLANTIC SALMON PARR. *J. Chem. Ecol.* 13(7):1625-1643. 1987. FR 33(2)
[Fish. Dep., Norland Coll., Box 6003, N-8016 Morkved, Norway]

88-001592 Sugita, Haruo; Tamao Noguchi; Deng F. Hwang; Mariko Furuta; Toyoaki Motokane; Teruhiko Sonoda; Kanehisa Hashimoto and Yoshiaki Deguchi. INTESTINAL MICROFLORA OF COASTAL PUFFER FISHES. *Nippon Suisan Gakkaishi* 53(12):2201-2207. 1987. In English. FR 33(2)
[Dep. Fish., Coll. Agric. & Vet. Med., Nihon Univ., Shimouma 3, Setagaya, Tokyo 154, Japan] *Fugu vermicularis, F. niphobles*, and *Canthigaster rivulata*.

88-001593 Sullivan, C. V.; M. G. Bernard and W. W. Dickhoff. THYROID HORMONE INFLUENCES FINAL MATURATION OF TROUT. *Am. Zool.* 27(4):79A. 1987. Abstract only. FR 33(2)
[Univ. Wash., Seattle] *Salmo gairdneri*.

88-001594 Swanson, P.; K. Suzuki and H. Kawauchu. ISOLATION AND BIOCHEMICAL CHARACTERIZATION OF TWO DISTINCT PITUITARY GONADOTROPINS FROM COHO SALMON, *ONCORHYNCHUS KISUTCH*. *Am. Zool.* 27(4):79A. 1987. Abstract only. FR 33(2)
[School Fish. Sci., Kitasato Univ., Sanriku, Iwate, Japan]

88-001595 Takahashi, Toyomi; Osamu Tominaga and Tatsuaki Maeda. [EFFECTS OF WATER TEMPERATURE ON FEEDING AND SURVIVAL OF RIGHTEYE FLOUNDERS *LIMANDA HERZENSTEINI* AND *LIMANDA YOKOHAMAE*.] *Nippon Suisan Gakkaishi* 53(11):1905-1911. 1987. In Japanese with English summ. FR 33(2)
[Fac. Fish., Hokkaido Univ., Minato 3, Hakodate 041, Japan]

88-001596 Tang, Yong; Steven Nolan and Robert G. Boutilier. ACID-BASE REGULATION FOLLOWING ACUTE ACIDOSIS IN SEAWATER-ADAPTED RAINBOW TROUT, *SALMO GAIRDNERI*: A POSSIBLE ROLE FOR CATECHOLAMINES. *J. Exp. Biol.* 134:297-312. 1988. FR 33(2)
[Dep. Biol., Aquatron Lab., Dalhousie Univ., Halifax, NS, Canada B3H 4J1]

PHYSIOLOGY (CONTINUED)

88-001597 Tetens, Vilhelm; Gunnar Lykkeboe and Niels Juel Christensen. POTENCY OF ADRENALINE AND NORADRENALINE FOR *b*-ADRENERGIC PROTON EXTRUSION FROM RED CELLS OF RAINBOW TROUT, *SALMO GAIRDNERI*. *J. Exp. Biol.* 134:267-280. 1988. FR 33(2)
[Dep. Zoophysiol., Univ. Aarhus, DK-8000 Aarhus C, Denmark]

88-001598 Thompson, Eric M.; Basil G. Nafpaktitis and Frederick I. Tsuji. DIETARY UPTAKE AND BLOOD TRANSPORT OF *VARGULA* (CRUSTACEAN) LUCIFERIN IN THE BIOLUMINESCENT FISH, *PORICHTHYS NOTATUS*. *Comp. Biochem. Physiol. A Comp. Physiol.* 89(2):203-209. 1988. FR 33(2)
[Veterans Admin. Med. Cent., Brentwood, Los Angeles, CA 90073]

88-001599 Timeyko, V. N. and G. G. Novikov. PROTEOLYTIC ACTIVITY IN THE DIGESTIVE TRACT OF ATLANTIC SALMON, *SALMO SALAR*, DURING LARVAL DEVELOPMENT. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):27-33. 1987. FR 33(2)
[Biol. Fac., Moscow State Univ., Moscow, USSR]

88-001600 Titus, Eric and Gregory A. Ahearn. SHORT-CHAIN FATTY ACID TRANSPORT IN THE INTESTINE OF A HERBIVOROUS TELEOST. *J. Exp. Biol.* 135:77-94. 1988. FR 33(2)
[Dep. Zool., 2538 The Mall, Univ. Hawaii Manoa, Honolulu 96822] *Oreochromis mossambicus*.

88-001601 Toner, K. B.; K. A. Dickson; G. A. Hunt; G. Rogers; M. Hughes and K. Matzko. PHYSIOLOGICAL AND BIOCHEMICAL EFFECTS OF ENVIRONMENTAL ACIDIFICATION IN TWO CATASTOMID FISH SPECIES. *Am. Zool.* 27(4):114A. 1987. Abstract only. FR 33(2)
[Bucknell Univ., Lewisburg, PA] *Hypentelium nigricans* and *Catastomus commersoni*.

88-001602 Tytler, P. and J. H. S. Blaxter. DRINKING IN YOLK-SAC STAGE LARVAE OF THE HALIBUT, *HIPPOGLOSSUS HIPPOGLOSSUS* (L.). *J. Fish Biol.* 32(3):493-494. 1988. FR 33(2)
[Dep. Biol. Sci., Univ. Stirling, Stirling FK9 4LA, Scotland]

88-001603 Ventura, M. Tereza; M. Susana Grazina-Freitas and M. Paula Cruz E Silva. LIPOID LIVER DEGENERATION IN TROUT - A DIET-RELATED CONDITION. *Aquaculture* 67(1-2):213. 1987. FR 33(2)
[Lab. Nac. Invest. Vet., Estrada Benfica 701, 1500 Lisbon, Portugal]

88-001604 Villegas, Maria Luisa. [ON THE SPAWNING OF FISHES OFF THE ASTURIAN COAST (N. OF SPAIN) WITH SPECIAL ATTENTION TO *SARDINA PILCHARDUS* (WALBAUM, 1792).] *Bol. Inst. Esp. Oceanogr.* 4(1):121-132. 1987. In Spanish with English summ. FR 33(2)
[Dep. Biol. Organismos & Sist., Fac. Biol., Univ. Oviedo, Oviedo, Spain]

88-001605 Vinogradov, G. A. and A. K. Klerman. ION EXCHANGE IN FRESHWATER FISHES UNDER STRESS. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):34-39. 1987. FR 33(2)
[Inst. Biol. Inland Waters, Acad. Sci. USSR, Borok, Yaroslavl Prov., USSR] *Carassius carassius, Perca fluviatilis, Rutilus rutilus*, and *Salmo trutta*.

88-001606 Vondracek, Bruce; Wayne A. Wurtsbauch and Joseph J. Cech, Jr. GROWTH AND REPRODUCTION OF THE MOSQUITOFISH, *GAMBUSIA AFFINIS*, IN RELATION TO TEMPERATURE AND RATION LEVEL: CONSEQUENCES FOR LIFE HISTORY.

PHYSIOLOGY (CONTINUED)

88-001606 CONTINUED *Environ. Biol. Fishes* 21(1):45-57. 1988. FR 33(2)
[Wildl. & Fish. Biol., Univ. Calif., Davis 95616]

88-001607 Wagh, S. B. SEASONAL VARIATIONS IN THE BIOCHEMICAL COMPOSITION OF FRESHWATER CYPRINID FISH, *CHELA CLUPEOIDES* (HAMILTON BUCHANAN) PART-1 MUSCLE. *Indian J. Comp. Anim. Physiol.* 4(1):49-54. 1986. FR 33(2)
[Dep. Zool., Marathwada Univ., Aurangabad-431 004, M.S., India]

88-001608 Wallace, Jeff. DEVELOPMENTAL RATES OF SALMON AND CHARR AT LOW TEMPERATURES. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 115. 1986. Abstract only. FR 33(2)
[Inst. Fish., Tromso Univ., P.O. Box 3083, N-9001 Tromso, Norway] *Salmo salar* and *Salvelinus alpinus*.

88-001609 Walsh, Patrick J.; Thomas P. Mommsen; Thomas W. Moon and Steve F. Perry. EFFECTS OF ACID-BASE VARIABLES ON *IN VITRO* HEPATIC METABOLISM IN RAINBOW TROUT. *J. Exp. Biol.* 135:231-241. 1988. FR 33(2)
[Div. Biol. & Living Resour., Rosenstiel School Mar. & Atmos. Sci., Univ. Miami, 4600 Rickenbacker Causeway, Miami, FL 33149] *Salmo gairdneri*.

88-001610 Wathey, John C. IDENTIFICATION OF THE TELEOST EDINGER-WESTPHAL NUCLEUS BY RETROGRADE HORSERADISH PEROXIDASE LABELING AND BY ELECTROPHYSIOLOGICAL CRITERIA. *J. Comp. Physiol. A Sens. Neural Behav. Physiol.* 162(4):511-524. 1988. FR 33(2)
[Div. Biol., 216-76, Calif. Inst. Technol., Pasadena 91125] *Paralabrax clathratus* and *P. nebulifer*.

88-001611 Wilcox, R. Stimson. SURFACE WAVE RECEPTION IN INVERTEBRATES AND VERTEBRATES. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 643-663. 1988. FR 33(2)
[Dep. Biol., SUNY, Binghampton, NY 13901]

88-001612 Wilson, Robert P. and William E. Poe. CHOLINE NUTRITION OF FINGERLING CHANNEL CATFISH. *Aquaculture* 68(1):65-71. 1988. FR 33(2)
[Dep. Biochem., Miss. State Univ., Mississippi State 39762] *Ictalurus punctatus*.

88-001613 Wolenski, J. S. and N. H. Hart. CYTOCHALASINS AND FERTILIZATION IN THE TELEOST EGG. *Am. Zool.* 27(4):120A. 1987. Abstract only. FR 33(2)
[Rutgers Univ., New Brunswick, NJ] *Brachydanio*.

88-001614 Woodward, Colleen Caldwell and Richard J. Strange. PHYSIOLOGICAL STRESS RESPONSES IN WILD AND HATCHERY-REARED RAINBOW TROUT. *Trans. Am. Fish. Soc.* 116(4):574-579. 1987. FR 33(2)
[Dep. For., Wildl. & Fish., Univ. Tenn., Knoxville 37916] *Salmo gairdneri*.

88-001615 Wright, P. A.; C. M. Wood and D. J. Randall. AN *IN VITRO* AND *IN VIVO* STUDY OF THE DISTRIBUTION OF AMMONIA BETWEEN PLASMA AND RED CELLS OF RAINBOW TROUT (*SALMO GAIRDNERI*). *J. Exp. Biol.* 134:423-428. 1988. FR 33(2)
[Randall: Dep. Zool., Univ. British Columbia, 6270 University Blvd., Vancouver, BC, Canada V6T 2A9]

PHYSIOLOGY (CONTINUED)

88-001616 Yamamori, Kunio; Moritaka Nakamura and Toshiaki J. Hara. GUSTATORY RESPONSES TO TETRODOTOXIN AND SAXITOXIN IN RAINBOW TROUT (*SALMO GAIRDNERI*) AND ARCTIC CHAR (*SALVELINUS ALPINUS*): A POSSIBLE BIOLOGICAL DEFENSE MECHANISM. *Ann. N.Y. Acad. Sci.* 510:727-729. 1987. FR 33(2)
[Hara: Dep. Fish. & Oceans, Freshwater Inst., 501 University Crescent, Winnipeg, MB, Canada R3T 2N6]

88-001617 Yonchek, Joan; Thomas E. Finger; Robert H. Cagan and Bruce P. Bryant. MONOCLONAL ANTIBODIES DIRECTED AGAINST CATFISH TASTE RECEPTORS: IMMUNOCHEMISTRY OF CATFISH TASTE BUDS. *Ann. N.Y. Acad. Sci.* 510:732-734. 1987. FR 33(2)
[Finger: Dep. Cell & Structural Biol., B-111, Univ. Colo. Med. School, 4200 E. 9th Ave., Denver 80262] *Ictalurus punctatus*.

88-001618 Zholdasova, I. M. and L. N. Guseva. OOGENESIS AND CYCLIC CHANGES IN THE GONADS OF MALE AND FEMALE CATFISH, *SILURUS GLANIS*, IN THE LOWER AMUDAR'YA BASIN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):1-8. 1987. FR 33(2)
[Multidiscipl. Inst. Nat. Sci., Kara Kalpak Branch Acad. Sci. Uzbek SSR, Nukus, USSR]

88-001619 Zippel, H. P. and D. L. Meyer. BEHAVIORAL RECOVERY AND MORPHOLOGICAL ALTERATIONS AFTER LESIONS IN THE OLFACTORY SYSTEM IN THE GOLDFISH (*CARASSIUS AURATUS*). *Ann. N.Y. Acad. Sci.* 510:739-741. 1987. FR 33(2)
[Physiol. Inst., Humboldtallee 23, Universitat D-3400, Gottingen, West Germany]

88-001620 Zver'kova, L. M. SPATIAL-TEMPORAL STRUCTURE OF THE REPRODUCTIVE AREA OF WALLEYE POLLOCK, *THERAGRA CHALCOGRAMMA*, IN THE NORTHERN PART OF THE OKHOTSK SEA. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):117-123. 1987. FR 33(2)
[Sakhalin Branch, Pac., Fish. & Oceanogr. Res Inst., Yuzhno-Sakhalinsk, USSR]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION

88-001621 Abban, E. K. and D. O. F. Skibinski. PROTEIN VARIATION IN *SCHILBE MYSTUS* (L.) AND *EUTROPIUS NILOTICUS* (RUPPEL) (PISCES SILURIFORMES) IN THE VOLTA BASIN OF GHANA, WEST AFRICA. *Aquacult. Fish. Manage.* 19(1):25-37. 1988. FR 33(2)
[Biomed. & Physiol. Res. Group, School Biol. Sci., Univ. Coll. Swansea, Singleton Park, Swansea SA2 8PP, Wales]

88-001622 Andriyasheva, M. A. and A. B. Lokshina. [POPULATION-GENETIC APPROACH TO SELECTION OF PELED (*COREGONUS PELED* GM.). 1. A METHOD FOR INCREASING STOCK HETEROZYGOSITY FOR ENZYME LOCI.] *Genetika* 23(12):2085-2097. 1987. In Russian with English summ. FR 33(2)
[Sci.-Res. Inst. Lake & River Fish., Leningrad, USSR]

88-001623 Bakker, Th. C. M.; E. Feuth-DeBruijn and P. Sevenster. ALBINISM IN THE THREESPINE STICKLEBACK, *GASTEROSTEUS ACULEATUS*. *Copeia* 1988(1):236-238. 1988. FR 33(2)
[Ethol. Dep., Zool. Lab., Univ. Leiden, P.O. Box 9516, 2300 RA Leiden, Netherlands]

88-001624 Baksi, S. M. and J. C. Means. PREPARATION OF CHROMOSOMES FROM EARLY STAGES OF FISH FOR CYTOGENETIC ANALYSIS. *J. Fish Biol.* 32(3):321-325. 1988. FR 33(2)

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

88-001624 CONTINUED
[Dep. Environ. Health Sci., School Hygiene & Public Health, Johns Hopkins Univ., 615 N. Wolfe St., Baltimore, MD 21205] *Cyprinodon variegatus* and *Morone saxatilis*.

88-001625 Bezrukov, V. F. ESTERASE ISOZYMES OF THE GRASS CARP AND THEIR VARIABILITY. *Cytol. Genet. (Engl. Trans. Tsitol. Genet.)* 21(4):56-60. 1987. FR 33(2)
[Kiev State Univ., USSR] *Ctenopharyngodon idella* in the USSR.

88-001626 Bianco, P. G. *LEUCISCUS CEPHALUS* (LINNAEUS), WITH RECORDS OF FINGERLING ADULT MALES, *LEUCISCUS PLEUROBIPUNCTATUS* (STEPHANIDIS) AND THEIR HYBRIDS FROM WESTERN GREECE. *J. Fish Biol.* 32(1):1-16. 1988. FR 33(2)
[Dip. Sci. Ambientali, Univ., 67100 L'Aquila, Italy]

88-001627 Brem, G.; B. Brenig; G. Horstgen-Schwark and E.-L. Winnacker. GENE TRANSFER IN TILAPIA (*OREOCHROMIS NILOTICUS*). *Aquaculture* 68(3):209-219. 1988. FR 33(2)
[Inst. Tierzucht & Tierhyg., Veterinarstr. 13, 8100 Munich 22, West Germany]

88-001628 Danzmann, Roy G.; Moira M. Ferguson and Fred W. Allendorf. HETEROZYGOSITY AND COMPONENTS OF FITNESS IN A STRAIN OF RAINBOW TROUT. *Biol. J. Linn. Soc.* 33(3):285-304. 1988. FR 33(2)
[Chesapeake Bay Inst., Johns Hopkins Univ., Shady Side, MD 20764-0037] *Salmo gairdneri*.

88-001629 Danzmann, Roy G. and Moira M. Ferguson. DEVELOPMENTAL RATES OF HETEROZYGOUS AND HOMOZYGOUS RAINBOW TROUT REARED AT THREE TEMPERATURES. *Biochem. Genet.* 26(1/2):53-67. 1988. FR 33(2)
[Chesapeake Bay Inst., Johns Hopkins Univ., Shady Side, MD 20764] *Salmo gairdneri*.

88-001630 Doucette, Albert J., Jr. and J. Michael Fitzsimons. KARYOLOGY OF ELOPIFORM AND CLUPEIFORM FISHES. *Copeia* 1988(1):124-130. 1988. FR 33(2)
[Dep. Biol., Southeast. La. Univ., Hammond 70402] *Megalops atlanticus* and *Anchoa mitchilli*.

88-001631 Dunham, R. A.; R. O. Smitherman and R. K. Goodman. COMPARISON OF MASS SELECTION, CROSSBREEDING, AND HYBRIDIZATION FOR IMPROVING GROWTH OF CHANNEL CATFISH. *Prog. Fish-Cult.* 49(4):293-296. 1987. FR 33(2)
[Dep. Fish & Allied Aquacult., Agric. Exp. Stn., Auburn Univ., Auburn, AL 36849] *Ictalurus punctatus*.

88-001632 Gall, G. A. E.; J. Baltodano and N. Huang. HERITABILITY OF AGE AT SPAWNING FOR RAINBOW TROUT. *Aquaculture* 68(2):93-102. 1988. FR 33(2)
[Dep. Anim. Sci., Aquacult. & Fish. Program, Univ. Calif., Davis 95616] *Salmo gairdneri*.

88-001633 Gold, J. R.; C. T. Amemiya; W. J. Karel and N. Iida. THE KARYOTYPE AND GENOME STRUCTURE OF THE PIRATE PERCH *APHREDODERUS SAYANUS* (APHREDODERIDAE: TELEOSTEI). *Experientia (Basel)* 44(1):68-72. 1988. FR 33(2)
[Dep. Wildl. & Fish. Sci., Tex. A&M Univ., College Station 77843]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

88-001634 Hubbs, Clark; Frank B. Cross and Fred Stevens. OCCURRENCE OF NATURAL HYBRIDS BETWEEN *ETHEOSTOMA* AND *PERCINA* (PISCES: PERCIDAE). *Southwest. Nat.* 33(1):97-99. 1988. FR 33(2)
[Dep. Zool., Univ. Tex., Austin 78712-1064] *Etheostoma lepidum, Percina caprodes carbonaria, P. caprodes,* and *Etheostoma spectabile* in Texas and Kansas.

88-001635 Kornfield, I. and S. M. Bogdanowicz. DIFFERENTIATION OF MITOCHONDRIAL DNA IN ATLANTIC HERRING, *CLUPEA HARENGUS. U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):561-568. 1987. FR 33(2)
[Dep. Zool. & Cent. Mar. Studies, Univ. Maine, Orono 04469]

88-001636 Leary, Robb F.; Fred W. Allendorf; Stevan R. Phelps and Kathy L. Knudsen. GENETIC DIVERGENCE AND IDENTIFICATION OF SEVEN CUTTHROAT TROUT SUBSPECIES AND RAINBOW TROUT. *Trans. Am. Fish. Soc.* 116(4):580-587. 1987. FR 33(2)
[Dep. Zool., Univ. Mont., Missoula 59812] *Salmo clarki* and *S. gairdneri.*

88-001637 Mabee, Paula Marie. PHYLOGENETIC CHANGE AND ONTOGENETIC INTERPRETATION IN THE FAMILY CENTRARCHIDAE (PERCIFORMES: CENTRARCHIDAE). *Ph.D. dissertation, Duke Univ.* 444p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(5):1269. 1987. FR 33(2)

88-001638 Macaranas, Julie M. and Yoshihisa Fujio. GENETIC DIFFERENCES AMONG STRAINS OF THE GUPPY, *POECILIA RETICULATA. Tohoku J. Agric. Res.* 37(3-4):75-85. 1987. FR 33(2)
[Dep. Fish. Sci., Fac. Agric., Tohoku Univ., Sendai 980, Japan]

88-001639 McEvoy, T.; M. Stack; B. Keane; T. Barry; J. Sreenan and F. Gannon. THE EXPRESSION OF A FOREIGN GENE IN SALMON EMBRYOS. *Aquaculture* 68(1):27-37. 1988. FR 33(2)
[Gannon: Dep. Microbiol., Univ. Coll., Galway, Ireland] *Salmo salar.*

88-001640 Mulligan, Timothy James. IDENTIFICATION OF WHITE PERCH *(MORONE AMERICANA)* STOCKS IN CHESAPEAKE BAY BASED ON OTOLITH COMPOSITION AND MITOCHONDRIAL DNA ANALYSIS. *Ph.D. dissertation, Univ. Md.* 126p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2249. 1988. FR 33(2)

88-001641 Muoneke, Maurice Ibechema. POPULATION DYNAMICS OF WHITE BASS AND STRIPED BASS X WHITE BASS HYBRIDS IN LAKE CARL BLACKWELL, OKLAHOMA. *Ph.D. dissertation, Okla. State Univ.* 183p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2234. 1988. FR 33(2)
Morone saxatilis and *M. chrysops.*

88-001642 Nakanishi, Teruyuki and Hiroshi Onozato. [VARIABILITY IN THE GROWTH OF ISOGENIC CRUCIAN CARP *CARASSIUS GIBELIO LANGSDORFII.*] *Nippon Suisan Gakkaishi* 53(12):2099-2104. 1987. In Japanese with English summ. FR 33(2)
[Inland Stn., Natl. Res. Inst. Aquacult., Tamaki, Mie 519-04, Japan]

88-001643 O'Maoileidigh, N.; S. Cawdery; J. J. Bracken and A. Ferguson. MORPHOMETRIC, MERISTIC CHARACTER AND ELECTROPHORETIC ANALYSES OF TWO IRISH POPULATIONS OF TWAITE SHAD, *ALOSA FALLAX* (LACEPEDE). *J. Fish Biol.* 32(3):355-366. 1988. FR 33(2)
[Zool. Dep., University College Belfield, Dublin 4, Ireland]

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

88-001644 Osborne, David R. and Sheldon I. Guttman. COMPARISON OF THE SENSITIVITY OF ELECTROPHORESIS AND ECOLOGICAL INDICES FOR THE DETECTION OF ENVIRONMENTAL STRESS IN A SOUTHWESTERN OHIO STREAM. *Ohio J. Sci.* 88(2):46-47. 1988. Abstract only. FR 33(2)
[Dep. Zool., Miami Univ., Oxford, OH 45056] *Notropis spilopterus* and *Campostoma anomalum*.

88-001645 Ovenden, J. R.; R. W. G. White and A. C. Sanger. EVOLUTIONARY RELATIONSHIPS OF *GADOPSIS* SPP. INFERRED FROM RESTRICTION ENZYME ANALYSIS OF THEIR MITOCHONDRIAL DNA. *J. Fish Biol.* 32(1):137-148. 1988. FR 33(2)
[Fish Res. Group, Dep. Zool., Univ. Tasmania, G.P.O. 252C, Hobart, Tasm. 7001, Australia]

88-001646 Reisenbichler, R. R. and S. R. Phelps. GENETIC VARIATION IN CHINOOK, *ONCORHYNCHUS TSHAWYTSCHA*, AND COHO, *O. KISUTCH*, SALMON FROM THE NORTH COAST OF WASHINGTON. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):681-701. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. Stn., Bldg. 204, Naval Stn., Seattle, WA 98115]

88-001647 Ropson, Ira J. BIOCHEMICAL GENETICS OF *FUNDULUS HETEROCLITUS* WITH EMPHASIS ON THE HEXOSE-6-PHOSPHATE DEHYDROGENASE SYSTEM. *Ph.D. dissertation, Johns Hopkins Univ.* 283p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(5):1219-1220. 1987. FR 33(2)

88-001648 Sezaki, K.; S. Watabe and K. Hashimoto. HAEMATOLOGICAL PARAMETERS AND ERYTHROCYTE ENZYME ACTIVITIES ASSOCIATED WITH INCREASE IN PLOIDY STATUS OF THE SPINOUS LOACH, *COBITIS BIWAE* JORDAN AND SNYDER. *J. Fish Biol.* 32(1):149-150. 1988. FR 33(2)
[Lab. Mar. Biochem., Fac. Agric., Univ. Tokyo, Bunkyo, Tokyo 113, Japan]

88-001649 Trexler, J. C. HEIRARCHICAL ORGANIZATION OF GENETIC VARIATION IN THE SAILFIN MOLLY, *POECILIA LATIPINNA* (PISCES, POECILIIDAE). *Am. Zool.* 27(4):11A. 1987. Abstract only. FR 33(2)
[Eckard Coll., St. Petersburg, FL]

88-001650 Tripathy, N. K. and C. C. Das. KARYOTYPES OF FIVE INDIAN PERCIFORM FISHES. *Copeia* 1988(1):231-233. 1988. FR 33(2)
[Dep. Zool., Berhampur Univ., Berhampur 760007, Orissa, India] *Seriola nigrofasciata, Lobotes surinamensis, Kathala axillaris, Ambassis nama*, and *Badis badis*.

88-001651 Ueda, Takayoshi; Morinobu Sawada and Jindo Kobayashi. CYTOGENETICAL CHARACTERISTICS OF THE EMBRYOS BETWEEN DIPLOID FEMALE AND TRIPLOID MALE IN RAINBOW TROUT. *Jpn. J. Genet.* 62(5):461-465. 1987. FR 33(2)
[Dep. Biol., Fac. Educ., Utsunomiya Univ., Utsunomiya 321, Japan] *Salmo gairdneri*.

88-001652 Verspoor, E. WIDESPREAD HYBRIDIZATION BETWEEN NATIVE ATLANTIC SALMON, *SALMO SALAR*, AND INTRODUCED BROWN TROUT, *S. TRUTTA*, IN EASTERN NEWFOUNDLAND. *J. Fish Biol.* 32(3):327-334. 1988. FR 33(2)
[Sci. Branch, Dep. Fish. & Oceans, P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

88-001653 Withler, R. E. GENETIC CONSEQUENCES OF FERTILIZING CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*) EGGS WITH POOLED MILT. *Aquaculture* 68(1):15-25. 1988. FR 33(2)

GENETICS, VARIATION STUDIES AND HYBRIDIZATION (CONTINUED)

88-001653 CONTINUED
[Dep. Fish. & Oceans, Fish. Res. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

BEHAVIOR

88-001654 Anderson, Anne A. and Andrew M. White. HABITAT SELECTION OF *ICHTHYOMYZON FOSSOR* AND *LAMPETRA APPENDIX* IN A NORTHEASTERN OHIO STREAM. *Ohio J. Sci.* 88(2):7. 1988. Abstract only. FR 33(2)
[Biol. Dep., John Carroll Univ., University Heights, OH 44118]

88-001655 Anthouard, Michel. A STUDY OF SOCIAL TRANSMISSION IN JUVENILE *DICENTRARCHUS LABRAX* (PISCES, SERRANIDAE), IN AN OPERANT CONDITIONING SITUATION. *Behaviour* 103(4):266-275. 1987. In English with French summ. FR 33(2)
[Lab. Psychophysiol., U.E.R. Sci. Comportement & Environ., Univ. Louis Pasteur, 7 rue Universite, 67000, Strasbourg, France]

88-001656 Aoki, Ichiro. CONTROL OF ORIENTATION RESPONSE BY AUDITORY DISCRIMINATIVE STIMULI IN THE CARP. *Nippon Suisan Gakkaishi* 53(11):1933-1941. 1987. In English. FR 33(2)
[Ocean Res. Inst., Univ. Tokyo, Nakano, Tokyo 164, Japan] *Cyprinus carpio*.

88-001657 Beacham, Jeffery L. and Jonathan A. Newman. SOCIAL EXPERIENCE AND THE FORMATION OF DOMINANCE RELATIONSHIPS IN THE PUMPKINSEED SUNFISH, *Lepomis gibbosus*. *Anim. Behav.* 35(5):1560-1563. 1987. FR 33(2)
[Behav. Ecol. Group, Dep. Biol. Sci., SUNY, Albany, NY 12222]

88-001658 Berglund, Anders; Gunilla Rosenqvist and Ingrid Svensson. MULTIPLE MATINGS AND PATERNAL BROOD CARE IN THE PIPEFISH *SYNGNATHUS TYPHLE*. *Oikos* 51(2):184-188. 1988. FR 33(2)
[Dep. Zool., Uppsala Univ., Box 561, S-751 22 Uppsala, Sweden]

88-001659 Blaxter, John H. S. SENSORY PERFORMANCE, BEHAVIOR, AND ECOLOGY OF FISH. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 203-232. 1988. FR 33(2)
[Dunstaffnage Mar. Res. Lab., Oban, Argyll PA34 4AD, Scotland]

88-001660 Bleckmann, Horst. PREY IDENTIFICATION AND PREY LOCALIZATION IN SURFACE-FEEDING FISH AND FISHING SPIDERS. *In: Sensory Biology of Aquatic Animals. Jelle Atema, Richard R. Fay, Arthur N. Popper, and William N. Tavolga, editors.* p. 619-641. 1988. FR 33(2)
[Dep. Neurosci., School Med. & Neurobiol. Unit, Scripps Inst. Oceanogr., Univ. Calif, San Deigo, La Jolla 92093]

88-001661 Brandt, Stephen B.; Doran M. Mason; David B. MacNeill; Thomas Coates and John E. Gannon. PREDATION BY ALEWIVES ON LARVAE OF YELLOW PERCH IN LAKE ONTARIO. *Trans. Am. Fish. Soc.* 116(4):641-645. 1987. FR 33(2)
[Univ. Md., Chesapeake Biol. Lab., P.O. Box 38, Solomons 20688] *Perca flavescens* and *Alosa pseudoharengus*.

88-001662 Bryant, Bruce P. and Jelle Atema. DIET MANIPULATION AFFECTS SOCIAL BEHAVIOR OF CATFISH: IMPORTANCE OF BODY ODOR. *J. Chem. Ecol.* 13(7):1645-1661. 1987. FR 33(2)

BEHAVIOR (CONTINUED)

88-001662 CONTINUED
[Monell Chem. Senses Cent., 3500 Market St., Philadelphia, PA 19104] *Ictalurus nebulosus*.

88-001663 Cancino, Juan M. and Juan C. Castilla. EMERSION BEHAVIOUR AND FORAGING ECOLOGY OF THE COMMON CHILEAN CLINGFISH *SICYASES SANGUINEUS* (PISCES: GOBIESOCIDAE). *J. Nat. Hist.* 22(1):249-261. 1988. FR 33(2)
[Dep. Biol. Ambiental & Poblaciones, Pontificia Univ. Catolica Chile, Casilla 114-D, Santiago, Chile]

88-001664 Carter, Jacque. GROUPER MATING RITUAL ON A CARIBBEAN REEF. *Underwater Nat.* 17(1):8-11. 1988. FR 33(2)
[Wildl. Conserv. Int., Coll. William & Mary School Mar. Sci., Williamsburg, VA] *Epinephelus striatus*.

88-001665 Coblentz, Bruce E. YELLOWTAIL CHAFING ON A SHARK: PARASITE REMOVAL? *Calif. Fish Game* 73(4):244. 1987. FR 33(2)
[Dep. Fish & Wildl., Oreg. State Univ., Corvallis 97331-3803] *Seriola lalandi* and *Prionace glauca*.

88-001666 Delbeek, J. C. and D. D. Williams. FEEDING SELECTIVITY OF FOUR SPECIES OF SYMPATRIC STICKLEBACK IN BRACKISH-WATER HABITATS IN EASTERN CANADA. *J. Fish Biol.* 32(1):41-62. 1988. FR 33(2)
[Div. Life Sci., Univ. Toronto, 1265 Military Tr., Scarborough, ON, Canada M1C 1A4] *Pungitius pungitius, Apeltes quadracus, Gasterosteus aculeatus*, and *G. wheatlandi*.

88-001667 Dick, Gary Owen. EVALUATION OF STRIPED BASS X WHITE BASS HYBRID PREDATION ON BLUEGILL IN SMALL WARMWATER IMPOUNDMENTS. *Ph.D. dissertation, Univ. Miss.* 73p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2231-2232. 1988. FR 33(2)
Morone saxatilis, M. chrysops, and *Lepomis macrochirus*.

88-001668 Endler, John A. PREDATION, LIGHT INTENSITY AND COURTSHIP BEHAVIOUR IN *POECILIA RETICULATA* (PISCES: POECILIIDAE). *Anim. Behav.* 35(5):1376-1385. 1987. FR 33(2)
[Dep. Biol. Sci., Univ. Calif., Santa Barbara 93106]

88-001669 Eriksson, Lars-Ove. CIRCADIAN AND CIRCANNUAL RHYTHMS IN SALMONIDS: POSSIBILITIES OF MODULATION BY EXTERNAL CUES. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 107, 1986. Abstract only. FR 33(2)
[Dep. Ecol. Zool., Univ. Umea, S-901 87 Umea, Sweden]

88-001670 Ferno, Anders. AGGRESSIVE BEHAVIOUR BETWEEN TERRITORIAL CICHLIDS (*ASTATOTILAPIA BURTONI*) IN RELATION TO RANK AND TERRITORIAL STABILITY. *Behaviour* 103(4):241-258. 1987. In English with German summ. FR 33(2)
[Dep. Fish. Biol., Univ. Bergen, P.O. Box 1839, N-5011 Bergen, Norway]

88-001671 Fishcher, Eric A. and Chris W. Petersen. SOCIAL BEHAVIOR OF MALES AND SIMULTANEOUS HERMAPHRODITES IN THE LANTERN BASS. *Ethology* 73(3):235-246. 1986. FR 33(2)
[Dep. Psychol., NI-25, Univ. Wash., Seattle 98195] *Serranus baldwini*.

88-001672 Fitzgerald, G. J. and G. I. Kedney. AGGRESSION, FIGHTING, AND TERRITORIALITY IN STICKLEBACKS: THREE DIFFERENT PHENOMENA? *Biol. Behav.* 12(4):186-195. 1987. In English with French summ. FR 33(2)

BEHAVIOR (CONTINUED)

88-001672 CONTINUED
[Dep. Biol., Univ. Laval, Sainte-Foy, PQ, Canada G1K 7P4] *Gasterosteus aculeatus*.

88-001673 Fitzhardinge, Rachel. THE EFFECTS OF FISH GRAZING ON JUVENILE CORALS. *Pac. Sci.* 39(4):382-383. 1988. Abstract Only. FR 33(2)

88-001674 Fricke, Diethard. REACTION TO ALARM SUBSTANCE IN CAVE POPULATIONS OF *ASTYANAX FASCIATUS* (CHARACIDAE, PISCES). *Ethology* 76(4):305-308. 1987. FR 33(2)
[Zool. Inst. & Mar. Univ. Hamburg, Hamburg, West Germany]

88-001675 Galle, M.; R. Neurohr; D. Bilo; R. Blickhen and W. Nachtigall. ACCELERATION AND DECELERATION DURING PREY CAPTURE OF THE RAINBOW TROUT (*SALMO GAIRDNERI*). *Am. Zool.* 27(4):63A. 1987. Abstract only. FR 33(2)
[Univ. Saarlandes, Saarbrucken, West Germany]

88-001676 Golovan, A. A. and N. P. Pakhorukov. DISTRIBUTION AND BEHAVIOR OF FISHES ON THE NASKA AND SALA Y GOMEZ SUBMARINE RANGES. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):71-78. 1987. FR 33(2)

88-001677 Gorman, Owen T. THE DYNAMICS OF HABITAT USE IN A GUILD OF OZARK MINNOWS. *Ecol. Monogr.* 58(1):1-18. 1988. FR 33(2)
[Dep. Biol., Memphis State Univ., Memphis, TN 38152]

88-001678 Gotceitas, Vytenis. SELECTION BETWEEN DENSITIES OF VEGETATION BY JUVENILE BLUEGILL SUNFISH (*LEPOMIS MACROCHIRUS*): EFFECTS OF FORAGING SUCCESS AND PREDATION PRESSURE. *Ph.D. dissertation, Queen's Univ. Kingston (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2181. 1988. FR 33(2)

88-001679 Grant, James W. A. and David L. G. Noakes. ESCAPE BEHAVIOUR AND USE OF COVER BY YOUNG-OF-THE-YEAR BROOK TROUT, *SALVELINUS FONTINALIS*. *Can. J. Fish. Aquat. Sci.* 44(8):1390-1396. 1987. In English with French summ. FR 33(2)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-001680 Grant, James William Angus. FORAGING TACTICS AND SOCIAL BEHAVIOUR OF YOUNG-OF-THE-YEAR BROOK CHARR. *Ph.D. dissertation, Univ. Guelph (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2191. 1988. FR 33(2)

88-001681 Green, J. M.; A.-L. Mathisen and J. A. Brown. LABORATORY OBSERVATIONS ON THE REPRODUCTIVE AND AGONISTIC BEHAVIOUR OF *ULVARIA SUBBIFURCATA* (PISCES: STEICHAEIDAE). *Nat. Can. (Que.)* 114(2):195-202. 1987. In English with French summ. FR 33(2)
[Dep. Biol. & Mar. Sci. Res. Lab., Memorial Univ. Newfoundland, St. John's, NF, Canada A1C 5S7]

88-001682 Groot, C. and T. P. Quinn. HOMING MIGRATION OF SOCKEYE SALMON, *ONCORHYNCHUS NERKA*, TO THE FRASER RIVER. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):455-469. 1987. FR 33(2)
[Dep. Fish. Oceans, Fish. Res. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

BEHAVIOR (CONTINUED)

88-001683 Haley, M. PAIR FORMATION IN THE TEXAS CICHLID, *CICHLASOMA CYANOGUTTATUM* (BAIRD AND GIRARD). *Biol. Behav.* 12(4):177-185. 1987. In English with French summ. FR 33(2)
[273 Appl. Sci., Univ. Calif., Santa Cruz 95064]

88-001684 Hangelin, Christer and Ilppo Vuorinen. FOOD SELECTION IN JUVENILE THREE-SPINED STICKLEBACKS STUDIED IN RELATION TO SIZE, ABUNDANCE AND BIOMASS OF PREY. *Hydrobiologia* 157(2):169-177. 1988. FR 33(2)
[Univ. Turku, Dep. Biol., SF-20500 Turku, Finland] *Gasterosteus aculeatus.*

88-001685 Hart, Paul and Stellan F. Hamrin. PIKE AS A SELECTIVE PREDATOR. EFFECTS OF PREY SIZE, AVAILABILITY, COVER AND PIKE JAW DIMENSIONS. *Oikos* 51(2):220-226. 1988. FR 33(2)
[Dep. Zool., Univ. Leicester, University Rd., Leicester LE1 7RH, England]

88-001686 Hastings, Philip A. CORRELATES OF MALE REPRODUCTIVE SUCCESS IN THE BROWNCHEEK BLENNY, *ACANTHEMBLEMARIA CROCKERI* (BLENNIOIDEA: CHAENOPSIDAE). *Behav. Ecol. Sociobiol.* 22(2):95-102. 1988. FR 33(2)
[Dep. Ecol. & Evol. Biol., Univ. Ariz., Tucson 85721]

88-001687 Hecht, T. and S. Appelbaum. OBSERVATIONS ON INTRASPECIFIC AGGRESSION AND COEVAL SIBLING CANNIBALISM BY LARVAL AND JUVENILE *CLARIAS GARIEPINUS* (CLARIIDAE: PISCES) UNDER CONTROLLED CONDITIONS. *J. Zool. (Lond.)* 214(1):21-44. 1988. FR 33(2)
[Dep. Ichthyol. & Fish. Sci., Rhodes Univ., P.O. Box 94, Grahamstown 6140, South Africa]

88-001688 Higby, M. and A. Beulig. EFFECTS OF SOCIAL EXPERIENCE ON THE DEVELOPMENT OF AGGRESSION IN *CYPRINODON VARIEGATUS. Am. Zool.* 27(4):50A. 1987. Abstract only. FR 33(2)
[New Coll., Sarasota, FL]

88-001689 Houde, Anne Elizabeth. SEXUAL SELECTION AND MATE CHOICE IN THE GUPPY *(POECILIA RETICULATA). Ph.D. dissertation, Univ. Md.* 123p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2233. 1988. FR 33(2)

88-001690 Irons, Darby. FEEDING BEHAVIOR OF THE BUTTERFLYFISH, *CHAETODON TRIFASCIALIS,* AT JOHNSTON ATOLL. *Pac. Sci.* 40(1-4):121. 1986. Abstract only. FR 33(2)
[Univ. Hawaii, Dep. Zool., Honolulu]

88-001691 Jahn, Larry A.; David R. Douglas; Monte J. Terhaar and Glen W. Kruse. EFFECTS OF STOCKING HYBRID STRIPED BASS IN SPRING LAKE, ILLINOIS. *N. Am. J. Fish. Manage.* 7(4):522-530. 1987. FR 33(2)
[Dep. Biol. Sci., West. Ill. Univ., Macomb 61455] *Dorosoma cepedianum, Morone saxatilis,* and *M. chrysops.*

88-001692 Johansson, L. EXPERIMENTAL EVIDENCE FOR INTERACTIVE HABITAT SEGREGATION BETWEEN ROACH *(RUTILUS RUTILUS)* AND RUDD *(SCARDINUS ERYTHROPHTHALMUS)* IN A SHALLOW EUTROPHIC LAKE. *Oecologia (Berl.)* 73(1):21-27. 1987. FR 33(2)
[Fish Ecol. Res. Group, Dep. Ecol., P.O. Box 65, S-22100 Lund, Sweden]

88-001693 Johnson, Philip C. and Gary L. Vinyard. FILTER-FEEDING BEHAVIOR AND PARTICLE RETENTION EFFICIENCY OF SACRAMENTO BLACKFISH. *Trans. Am. Fish. Soc.* 116(4):634-640. 1987. FR 33(2)
[Dep. Biol., Univ. Nev., Reno 89557] *Orthodon microlepidotus* in Nevada.

BEHAVIOR (CONTINUED)

88-001694 Katula, Ray. CROSSBREEDING OF RIVER DARTER & BLACKSIDE DARTER (*PERCINA SHUMARDI* & *P. MACULATA*). *Am. Curr.* p. 20-22. 1987. FR 33(2)

88-001695 Kerley, G. I. H.; L. Bowen and T. Erasmus. FISH BEHAVIOUR - A POSSIBLE ROLE IN THE OILING OF SEABIRDS. *S. Afr. J. Wildl. Res.* 17(4):128-130. 1987. In English with Afrikaans summ. FR 33(2)
[Dep. Zool., Univ. Port Elizabeth, P.O. Box 1600, Port Elizabeth 6000, South Africa] *Liza dumerili*.

88-001696 Ketele, Ann Gerard. STUDY ON INTRASPECIFIC RELATIONS BETWEEN *GASTEROSTEUS ACULEATUS* L. F. LEIURA, *PUNGITIUS PUNGITIUS* (L.) AND *NOEMACHEILUS BARBATULA* L. *Ph.D. dissertation, Univ. Instelling Antwerpen (Belgium)* 233p. 1985. From Diss. Abstr. Int. B Sci. Eng. 48(5):1230. 1987. In Dutch with English summ. FR 33(2)
Gasterosteus aculeatus, Pungitius pungitius and *Noemacheilus barbatula*.

88-001697 Kobayashi, Donald R. SOCIAL ORGANIZATION OF THE EASTERN PACIFIC SPOTTED SHARPNOSE PUFFER, *CANTHIGASTER PUNCTATISSIMA* (TETRAODONTIDAE). *Pac. Sci.* 39(4):388. 1988. Abstract Only. FR 33(2)

88-001698 Kocik, John F. and William W. Taylor. DIET AND MOVEMENTS OF AGE-1+ PINK SALMON IN WESTERN LAKE HURON. *Trans. Am. Fish. Soc.* 116(4):628-633. 1987. FR 33(2)
[Dep. Fish. & Wildl., Mich. State Univ., East Lansing, 48824] *Oncorhynchus gorbuscha*.

88-001699 Kodric-Brown, Astrid. EFFECT OF POPULATION DENSITY, SIZE OF HABITAT AND OVIPOSITION SUBSTRATE ON THE BREEDING SYSTEM OF PUPFISH (*CYPRINODON PECOSENSIS*). *Ethology* 77(1):28-43. 1988. FR 33(2)
[Biol. Dep., Univ. N.M., Albuquerque 87131]

88-001700 Kohda, Masanori. DIURNAL PERIODICITY OF SPAWNING ACTIVITY OF PERMANENTLY TERRITORIAL DAMSELFISHES (TELEOSTEI: POMACENTRIDAE). *Environ. Biol. Fishes* 21(2):91-100. 1988. FR 33(2)
[Lab. Anim. Sociol., Fac. Sci., Osaka City Univ., Sugimoto, Sumiyoshi-ku, Osaka, 558 Japan] *Stegastes altus*.

88-001701 Krall, M. M. VERTICAL RESOURCE PARTITIONING AND SEXUALITY OF THREE SYMPATRIC SPECIES OF RED SEA SANDFISHES (*XYRICHTYS MELANOPUS*, LABRIDAE; *TRICHONOTUS NIKII*, TRICHONOTIDAE; *GORGASIA* SP., HETEROCONGRIDAE). *Am. Zool.* 27(4):161A. 1987. Abstract only. FR 33(2)
[Univ. Md., College Park]

88-001702 Larsen, David P.; James M. Omernik; Robert M. Hughes; Christina M. Rohm; Thomas R. Whittier; Andrew J. Kinney; Alisa L. Gallant and Daniel R. Dudley. CORRESPONDENCE BETWEEN SPATIAL PATTERNS IN FISH ASSEMBLAGES IN OHIO STREAMS AND AQUATIC ECOREGIONS. *Environ. Manage.* 10(6):815-828. 1986. FR 33(2)
[Environ. Res. Lab., U.S. Environ. Protection Agency, Corvallis, OR 97333]

88-001703 Levin, L. E. and P. Belmonte. ORIENTED SWIMMING AT AN ANGLE TO LIGHT IN A SCHOOLING CHARACID, *MOENKHAUSIA DICHROURA* KNER. *J. Fish Biol.* 32(2):169-177. 1988. FR 33(2)
[Escuela Biol., Lab. Comportamiento Anim., Univ. Cent. Venezuela, Apdo. 47106, Los Chaguaramos, Caracas 0141, Venezuela]

BEHAVIOR (CONTINUED)

88-001704 Lowe, Christopher G. MASTERS OF PREDATION: SHARK RESEARCH IN BELIZE. *Underwater Nat.* 17(1):16-18. 1988. FR 33(2)
[Calif. Tech, Long Beach, CA] *Ginglymostoma perezii, Carcharhinus perezii, C. leucas,* and *C. limbatus.*

88-001705 McFall-Ngai, M. and J. Morin. CAMOUFLAGE BY 'DISRUPTIVE ILLUMINATION' IN THE LEIOGNATHIDAE, A FAMILY OF NEARSHORE LUMINESCENT FISHES. *Am. Zool.* 27(4):168A. 1987. Abstract only. FR 33(2)
[Scripps Inst. Oceanogr., La Jolla, CA]

88-001706 Morgan, Mary Joanne. SHOALING BEHAVIOUR OF THE BLUNTNOSE MINNOW *(PIMEPHALES NOTATUS)* IN RELATION TO FORAGING AND PREDATOR AVOIDANCE. *Ph.D. dissertation, Queen's Univ., Kingston (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2193. 1988. FR 33(2)

88-001707 Mousseau, Timothy A.; Nicholas C. Collins and Gilbert Cabana. A COMPARATIVE STUDY OF SEXUAL SELECTION AND REPRODUCTIVE INVESTMENT IN THE SLIMY SCULPIN, *COTTUS COGNATUS. Oikos* 51(2):156-162. 1988. FR 33(2)
[Dep. Biol., McGill Univ., Montreal, PQ, Canada H3A 1B1]

88-001708 Mundy, P. J. HABITAT PARTITIONING BETWEEN SYMPATRIC COHO SALMON AND DOLLY VARDEN CHAR JUVENILES. *Northwest Sci.* 62(2):75. 1988. Abstract only. FR 33(2)
[U.S. For. Serv., Pac. Northwest Exp. Stn., Corvallis, OR] *Oncorhynchus kisutch* and *Salvelinus malma* in Alaska.

88-001709 Noltie, D. B. and M. H. A. Keenleyside. THE BREEDING BEHAVIOUR OF STREAM-DWELLING ROCK BASS, *AMBLOPLITES RUPESTRIS* (CENTRARCHIDAE). *Biol. Behav.* 12(4):196-206. 1987. FR 33(2)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-001710 Norton, S. F. PREDICTING ECOLOGY FROM FUNCTIONAL MORPHOLOGY: TESTS OF PREDICTIONS IN COTTID FISHES. *Am. Zool.* 27(4):124A. 1987. Abstract only. FR 33(2)
[Univ. Calif, Santa Barbara] Cottidae and *Jordania zonope.*

88-001711 O'Neil, Steven P. and Michael P. Weinstein. FEEDING HABITATS OF SPOT, *LEIOSTOMUS XANTHURUS,* IN POLYHALINE VERSUS MESO-OLIGOHALINE TIDAL CREEKS AND SHOALS. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):785-796. 1987. FR 33(2)
[Inst. Mar. Sci., Gloucester Point, VA 23062]

88-001712 Okach, J. O. and S. Dadzie. THE FOOD, FEEDING HABITS AND DISTRIBUTION OF A SILUROID CATFISH, *BAGRUS DOCMAC* (FORSSKAL), IN THE KENYA WATERS OF LAKE VICTORIA. *J. Fish Biol.* 32(1):85-94. 1988. FR 33(2)
[Dadzie: Dep. Zool., Univ. Nairobi, P.O. Box 30197, Nairobi, Kenya]

88-001713 Olsen, Hakan. FOOD SEARCH BEHAVIOUR IN ARCTIC CHARR (*SALVELINUS ALPINUS* (L.)) INDUCED BY FOOD EXTRACTS AND AMINO ACIDS. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 113. 1986. Abstract only. FR 33(2)
[Dep. Zoophysiol., Uppsala Univ., P.O. Box 560, S-751 22 Uppsala, Sweden]

88-001714 Parrish, J. K. RE-EXAMINING THE SELFISH HERD: ARE CENTRAL FISH SAFER? *Am. Zool.* 27(4):47A. 1987. Abstract only. FR 33(2)
[Duke Univ. Mar. Lab., Durham, NC] *Menidia menidia* and *Centropristus striata.*

BEHAVIOR (CONTINUED)

88-001715 Perez, E. [CIRCADIAN RHYTHM OF JUVENILE BROWN TROUT ACTIVITY: PERCEPTUAL INFLUENCES OF CONSPECIFICS.] *Nat. Can. (Que.)* 114(3):343-350. 1987. In French with English summ. FR 33(2)
[Lab. Biol. Anim. & Appl., Fac. Sci. & Tech., Univ. Saint-Etienne, 23 Rue Dr. P. Michelon, 42023 Saint-Etienne Cedex 2, France] *Salmo trutta.*

88-001716 Petersen, Christopher W. MALE MATING SUCCESS, SEXUAL SIZE DIMORPHISM, AND SITE FIDELITY IN TWO SPECIES OF *MALACOCTENUS* (LABRISOMIDAE). *Environ. Biol. Fishes* 21(3):173-183. 1988. FR 33(2)
[Smithsonian Trop. Res. Inst., APO Miami, FL 34002-0011] *Malacoctenus hubbsi* and *M. macropus.*

88-001717 Pierce, Clay Lynn. EFFECTS OF FISH ON LITTORAL INVERTEBRATES. *Ph.D. dissertation, Univ. Md.* 137p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2194. 1988. FR 33(2)
Lepomis macrochirus and *Micropterus salmoides.*

88-001718 Pitcher, T. J.; S. H. Lang and J. A. Turner. A RISK-BALANCING TRADE OFF BETWEEN FORAGING REWARDS AND PREDATION HAZARD IN A SHOALING FISH. *Behav. Ecol. Sociobiol.* 22(3):225-228. 1988. FR 33(2)
[School. Anim. Biol., Univ. Wales, Bangor, Gwynedd LL57 2UW, Wales]

88-001719 Rankin, Catharine H. and Peter Moller. SOCIAL BEHAVIOR OF THE AFRICAN ELECTRIC CATFISH, *MALAPTERURUS ELECTRICUS*, DURING INTRA- AND INTERSPECIFIC ENCOUNTERS. *Ethology* 73(3):177-190. 1986. FR 33(2)
[Dep. Psychol., Yale Univ., P.O. Box 11A, New Haven, CT 06511]

88-001720 Richter, Hans Joachim. *NANOCHROMIS TRANSVESTITUS*: A DWARF CICHLID FROM ZAIRE. *Trop. Fish Hobbyist* 36(6):10-12, 14-15. 1988. FR 33(2)

88-001721 Rosenau, Marvin L. and J. D. McPhail. INHERITED DIFFERENCES IN AGONISTIC BEHAVIOR BETWEEN TWO POPULATIONS OF COHO SALMON. *Trans. Am. Fish. Soc.* 116(4):646-654. 1987. FR 33(2)
[Dep. Biol. Sci., Univ. Waikato, Hamilton, New Zealand] *Oncorhynchus kisutch.*

88-001722 Rudstam, Lars G. and Todd W. Trapp. DIEL PATTERNS OF BEHAVIOR AND HABITAT UTILIZATION OF CISCO (*COREGONUS ARTEDII*) IN TWO WISCONSIN LAKES. *Trans. Wis. Acad. Sci. Arts Lett.* No. 75. p. 70-78. 1987. FR 33(2)

88-001723 Satou, Masahiko; Hiroaki Takeuchi; Kohtaro Takei; Takeshi Hasegawa; Naoto Okumoto and Kazuo Ueda. INVOLVEMENT OF VIBRATIONAL AND VISUAL CUES IN ELICITING SPAWNING BEHAVIOUR IN MALE HIME SALMON (LANDLOCKED RED SALMON, *ONCORHYNCHUS NERKA*). *Anim. Behav.* 35(5):1556-1558. 1987. FR 33(2)
[Zool. Inst., Fac. Sci., Univ. Tokyo, Tokyo 113, Japan]

88-001724 Sikkel, P. C. DOES EGG PRESENCE AND COLORATION INFLUENCE SPAWNING SITE CHOICE BY FEMALE GARIBALDI? *Am. Zool.* 27(4):19A. 1987. Abstract only. FR 33(2)
[Oreg. State Univ., Corvallis] *Hypsypops rubicunda.*

88-001725 Skorobogatov, M. A.; D. S. Pavlov and A. Sh. Barekyan. STUDY OF ASSOCIATION OF SWIMMING ABILITY OF ROACH, *RUTILUS RUTILUS*, WITH THE PRESSURE AND ANGLE OF INCLINATION OF CURRENT. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):40-46. 1987. FR 33(2)
[Inst. Evol. Morphol. & Anim. Ecol., Acad. Sci. USSR-IEMEZH, Moscow, USSR]

BEHAVIOR (CONTINUED)

88-001726 Somers, Keith Marquis. POPULATION CHARACTERISTICS OF THE CRAYFISH, *CAMBARUS BARTONI*, IN LAKES WITH AND LAKES WITHOUT INTRODUCED POPULATIONS OF SMALLMOUTH BASS, *MICROPTERUS DOLOMIEUI*, IN ALGONQUIN PROVINCIAL PARK, ONTARIO. *Ph.D. dissertation, Univ. Western Ontario (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(6):1617-1618. 1987. FR 33(2)

88-001727 Tackett, Dewey L.; Ray R. Carter and Ken O. Allen. WINTER FEEDING OF CHANNEL CATFISH BASED ON MAXIMUM AIR TEMPERATURE. *Prog. Fish-Cult.* 49(4):290-292. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Fish Farming Exp. Stn., P.O. Box 860, Stuttgart, AR 72160] *Ictalurus punctatus*.

88-001728 Taylor, P. B. EFFECTS OF ANAESTHETIC MS 222 ON THE ORIENTATION OF JUVENILE SALMON, *ONCORHYNCHUS TSHAWYTSCHA* WALBAUM. *J. Fish Biol.* 32(2):161-168. 1988. FR 33(2)
[19a Park Dr., Harrogate HG2 9AY, North Yorkshire, England]

88-001729 Tulley, J. J. and F. A. Huntingford. PATERNAL CARE AND THE DEVELOPMENT OF ADAPTIVE VARIATION IN ANTI-PREDATOR RESPONSES IN STICKLEBACKS. *Anim. Behav.* 35(5):1570-1572. 1987. FR 33(2)
[Huntingford: Dep. Zool., Univ. Glasgow, Glasgow G12 8QQ, Scotland]

88-001730 Turner, George F. PARTNER ATTACK INHIBITION IN THE CONVICT CICHLID, *CICHLASOMA (ARCHOCENTRUS) NIGROFASCIATUM. Behaviour* 103(4):294-316. 1987. FR 33(2)
[School Anim. Biol., Univ. Coll. North Wales, Bangor, Gwynedd LL57 2UW, Wales]

88-001731 Walsh, Gordon; Roderick Morin and Robert J. Naiman. DAILY RATIONS, DIEL FEEDING ACTIVITY AND DISTRIBUTION OF AGE-0 BROOK CHARR, *SALVELINUS FONTINALIS*, IN TWO SUBARCTIC STREAMS. *Environ. Biol. Fishes* 21(3):195-205. 1988. FR 33(2)
[Dep. Fish. & Oceans, Maurice Lamontagne Inst., 850 Rt. de la Mer, Mont-Joli, PQ, Canada G5H 3Z4]

88-001732 Wardle, C. S. and P. He. BURST SWIMMING SPEEDS OF MACKEREL, *SCOMBER SCOMBRUS* L. *J. Fish Biol.* 32(3):471-478. 1988. FR 33(2)
[DAFS Mar. Lab., Victoria Rd., P.O. Box 101, Aberdeen AB9 8DB, Scotland]

88-001733 Warner, Robert R. FEMALE CHOICE OF SITES VERSUS MATES IN A CORAL REEF FISH, *THALASSOMA BIFASCIATUM. Anim. Behav.* 35(5):1470-1478. 1987. FR 33(2)
[Dep. Biol. Sci., Univ. Calif., Santa Barbara 93106]

88-001734 Wippelhauser, Gail S. and James D. McCleave. RHYTHMIC ACTIVITY OF MIGRATING JUVENILE AMERICAN EELS *ANGUILLA ROSTRATA. J. Mar. Biol. Assoc. U.K.* 68(1):81-91. 1988. FR 33(2)
[Dep. Zool., Univ. Me., Orono, 04469]

88-001735 Wyman, Richard L. and Leilani Hotaling. A TEST OF THE MODEL OF THE ECONOMIC DEFENDABILITY OF A RESOURCE AND TERRITORIALITY USING YOUNG *ETROPLUS MACULATUS* AND *PELMATOCHROMIS SUBOCELLATUS KRIBENSIS. Environ. Biol. Fishes* 21(1):69-76. 1988. FR 33(2)
[Edmund Niles Huyck Preserve & Biol. Res. Stn., Rensselaerville, NY 12147]

LIFE HISTORY-GENERAL WORKS

88-001736 Akselman, Rut; Jose I. Carreto and Fernando C. Ramirez. [PLANKTON MESOSCALE DISTRIBUTION IN A SPAWNING AREA OF *ENGRAULIS ANCHOITA* IN SHELF WATERS OFF BUENOS AIRES PROVINCE.] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 69-91. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001737 Baddar, M. K. A PRELIMINARY STUDY OF THE POPULATION DYNAMICS OF A SHEIRY, THE STARRY PIGFACE BREAM, *LETHRINUS NEBULOSUS*. *Kuwait Bull. Mar. Sci.* 1987(9):215-220. 1987. In English with Arabic summ. FR 33(2)
[Maricult. & Fish. Dep., Kuwait Inst. Sci. Res., Kuwait]

88-001738 Barnhart, Roger A. SPECIES PROFILES: LIFE HISTORIES AND ENVIRONMENTAL REQUIREMENTS OF COASTAL FISHES AND INVERTEBRATES (PACIFIC SOUTHWEST):PACIFIC HERRING. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(11.79):14p. 1988. FR 33(2)
[Coop. Fish. Res. Unit, Humboldt State Univ., Arcata, CA 95521] *Clupea harengus pallasi*.

88-001739 Baugh, Thomas M. THE CALIFORNIA KILLIFISH. *Underwater Nat.* 17(1):12-13. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Jacksonville, FL] *Fundulus parvipinnis*.

88-001740 Bowering, W. R. DISTRIBUTION OF WITCH FLOUNDER, *GLYPTOCEPHALUS CYNOGLOSSUS*, IN THE SOUTHERN LABRADOR AND EASTERN NEWFOUNDLAND AREA AND CHANGES IN CERTAIN BIOLOGICAL PARAMETERS AFTER 20 YEARS OF EXPLOITATION. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):611-629. 1987. FR 33(2)
[Fish. Res. Branch, Dep. Fish & Oceans, P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

88-001741 Brenner, T.; J. Clasen; K. Lange and T. Lindem. THE WHITEFISH (*COREGONUS LAVARETUS* (L.)) OF THE WAHNBACH RESERVOIR AND THEIR ASSESSMENT BY HYDROACOUSTIC METHODS. *Swiss J. Hydrol.* 49(3):363-372. 1987. In English. FR 33(2)
[Landesanstalt Fisch. Nordrhein-Westfalen, Heinsbergerstr. 51-53, D-5942 Kirchhundem 1-Albaum, West Germany]

88-001742 Crivelli, Alain J. and D. Mestre. LIFE HISTORY TRAITS OF PUMPKINSEED, *LEPOMIS GIBBOSUS*, INTRODUCED INTO THE CAMARGUE, A MEDITERRANEAN WETLAND. *Arch. Hydrobiol.* 111(3):449-466. 1988. FR 33(2)
[Stn. Biol. Tour du Valat, Le Sambuc, F-13200 Arles, France]

88-001743 Gajdusek, Josef; Andrjus Astrauskas; Juozas Virbickas; Dale Luksene and Danute Misjunene. THE ECOLOGY OF THE BREAM IN THE COOLING RESERVOIR OF A LITHUANIAN THERMAL POWER STATION. *Prirodoved. Pr. Ustavu Cesk. Akad. Ved. Brne* 21(6):1-36. 1988. In English with Russian summ. FR 33(2)
[Zool. Garden, 544 00 Dvur Kralove, Czechoslovakia] *Abramis brama*.

88-001744 Hansen, Jorge E.; Diego L. Gru and Ricardo G. Perrotta. [RESULTS FROM A RESEARCH CRUISE ON THE ANCHOVY (*ENGRAULIS ANCHOITA*) OF BUENOS AIRES PROVINCE CONDUCTED IN THE AUTUMN OF 1983. DISTRIBUTION, ABUNDANCE AND SOME FISHERY-BIOLOGICAL ASPECTS.] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 49-68. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001745 Hartmann, J. WHITEFISH AS INDICATORS OF CULTURAL EUTROPHICATION? *Swiss J. Hydrol.* 49(3):343-352. 1987. In English with German summ. FR 33(2)
[Inst. Seenforschung & Fischereiwesen, Untere Seestr. 81, D-7994 Langenargen, West Germany] *Coregonus lavaretus*.

LIFE HISTORY-GENERAL WORKS (CONTINUED)

88-001746 Kendall, A. W., Jr.; M. E. Clarke; M. M. Yoklavich and G. W. Boehlert. DISTRIBUTION, FEEDING, AND GROWTH OF LARVAL WALLEYE POLLOCK, *THERAGRA CHALCOGRAMMA*, FROM SHELIKOF STRAIT, GULF OF ALASKA. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):499-521. 1987. FR 33(2)
[Northwest & Alaska Fish. Cent., NMFS, NOAA, 7600 Sand Point Way, N.E., Seattle, WA 98115]

88-001747 Killgore, K. Jack; Andrew C. Miller and Kenneth C. Conley. EFFECTS OF TURBULENCE ON YOLK-SAC LARVAE OF PADDLEFISH. *Trans. Am. Fish. Soc.* 116(4):670-673. 1987. FR 33(2)
[U.S. Army Eng. Waterways Exp. Stn., Environ. Lab., P.O. Box 631, Vicksburg, MS 39180] *Polyodon spathula*.

88-001748 Kowite, William J. THE ELECTRIC BLUE *HAPLOCHROMIS*. *Trop. Fish Hobbyist* 36(7):10-12, 14. 1988. FR 33(2)
H. ahli.

88-001749 Kunzlik, P. A. THE BASKING SHARK. *Scott. Fish. Inf. Pamph.* No. 14. 21p. 1988. FR 33(2)
[Dep. Agric. & Fish., Mar. Lab., P.O. Box 101, Victoria Rd., Torry, Aberdeen AB9 8DB, Scotland] *Cetorhinus maximus*.

88-001750 Lopez Lemus, Luis Gerardo. BIOCHEMICAL SYSTEMATIC ANALYSIS OF EVOLUTIONARY RELATIONSHIPS OF GROUPERS FROM THE GULF OF CALIFORNIA. *Biochem. Syst. Ecol.* 16(1):79-87. 1988. FR 33(2)
[Div. Invest. Biol. Mar., Cent. Invest. Biol. Baja Calif. Sur, AC, Apdo. No. 128, La Paz, Baja Calif. Sur 23060, Mexico] *Epinephelus* spp.

88-001751 Mawle, G. W.; A. Winstone and M. P. Brooker. SALMON AND SEA TROUT IN THE TAFF--PAST, PRESENT AND FUTURE. *Nat. Wales New Ser.* 4(1-2):36-45. 1985. FR 33(2)
[Dep. Appl. Biol., UWIST, P.O. Box 13 Cardiff, Wales] *Salmo salar* and *S. trutta* in Wales.

88-001752 Pavlov, D. A.; V. V. Volobuev and V. A. Maksimov. REPRODUCTION AND EARLY DEVELOPMENT OF THE MIGRATORY ARCTIC CHARR, *SALVELINUS ALPINUS*, IN THE RIVERS OF THE CONTINENTAL COAST OF THE OKHOTSK SEA. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):135-148. 1987. FR 33(2)
[Biol. Fac., Moscow State Univ., Moscow, USSR]

88-001753 Penaz, Milan and Ajuuryn Dulmaa. MORPHOLOGY, POPULATION STRUCTURE, REPRODUCTION AND GROWTH IN MONGOLIAN POPULATIONS OF *CARASSIUS AURATUS GIBELIO* (PISCES: CYPRINIDAE). *Folia Zool.* 36(2):161-173. 1987. In English with Russian summ. FR 33(2)
[Inst. Syst. & Ecol. Biol., CSAV, Kvetna 8, 603 65 Brno, Czechoslovakia]

88-001754 Thompson, Kenneth W. OBSERVATIONS ON THE LIFE HISTORY OF GOLDEYE, *HIODON ALOSOIDES*, IN THE LITTLE TALLAHATCHIE RIVER. *J. Miss. Acad. Sci.* 32:47-54. 1987. FR 33(2)
[Dep. Biol., Univ. Miss., University 38677]

88-001755 Woodman, David A. THE EVOLUTIONARY HISTORY OF THE GENUS *RHINICHTHYS*: HYPOTHESES AND TESTS. *Ph.D. dissertation, Univ. Nebr. (Lincoln)* 324p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(5):1271. 1987. FR 33(2)

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC.

88-001756 Booth, David J. EFFECT OF GROUP SIZE ON POPULATION DYNAMICS OF JUVENILE DOMINO DAMSELFISH (*DASCYLLUS ALBISELLA*). *Am. Zool.* 27(4):122A. 1987. Abstract only. FR 33(2)
[Dep. Zool., Oreg. State Univ.]

88-001757 Donald, D. B. ASSESSMENT OF THE OUTCOME OF EIGHT DECADES OF TROUT STOCKING IN THE MOUNTAIN NATIONAL PARKS, CANADA. *N. Am. J. Fish. Manage.* 7(4):545-553. 1987. FR 33(2)
[Environ. Canada, Inland Waters/Lands, 1901 Victoria Ave., Regina, SN, Canada S4P 3R4] *Salmo clarki, S. gairdneri,* and *Salvelinus fontinalis.*

88-001758 Drinkwater, K. F. "SUTCLIFFE REVISITED": PREVIOUSLY PUBLISHED CORRELATIONS BETWEEN FISH STOCKS AND ENVIRONMENTAL INDICES AND THEIR RECENT PERFORMANCE. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 41-61. 1987. In English with French summ. FR 33(2)
[Mar. Fish Div., Bedford Inst. Oceanogr., P.O. Box 1006, Dartmouth, NS, Canada B2Y 4A2]

88-001759 Eder, Stephen and William E. McDannold, Sr. THE CHANNEL CATFISH FISHERY AT PONY EXPRESS LAKE, MISSOURI, 1963-1984. *N. Am. J. Fish. Manage.* 7(4):502-512. 1987. FR 33(2)
[Dep. Conserv., Cameron, MO 64429] *Ictalurus punctatus.*

88-001760 Fadeev, N. S. and A. V. Smirnov. [ESTIMATION OF THE ABUNDANCE OF EGGS AND SPAWNERS OF WALLEYE POLLOCK IN THE NORTHERN OKHOTSK SEA.] *Mar. Biol. Vladivostok* 1987(4):19-25. 1987. In Russian with English summ. FR 33(2)
Theragra chalcogramma.

88-001761 Gru, Diego L. and Jorge E. Hansen. [STUDIES ON DISTRIBUTION OF THE ANCHOVY (*ENGRAULIS ANCHOITA*) WITHIN A SMALL AREA. I: SAMPLING EFFORT REQUIRED TO ESTIMATE SOME POPULATION PARAMETERS.] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 143-168. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001762 Jurvelius, Juha and T. Heikkinen. THE PELAGIC FISH DENSITY, BIOMASS AND GROWTH OF VENDACE, *COREGONUS ALBULA* L., MONITORED BY HYDROACOUSTIC METHODS AND TRAWLING IN A FINNISH LAKE. *Aqua Fenn.* 17(1):27-34. 1987. FR 33(2)
[Game & Fish. Res. Inst., SF-58175 Enonkoski, Finland]

88-001763 Kallemeyn, Larry W. CORRELATIONS OF REGULATED LAKE LEVELS AND CLIMATIC FACTORS WITH ABUNDANCE OF YOUNG-OF-THE-YEAR WALLEYE AND YELLOW PERCH IN FOUR LAKES IN VOYAGEURS NATIONAL PARK. *N. Am. J. Fish. Manage.* 7(4):513-521. 1987. FR 33(2)
[Voyageurs Natl. Park, P.O. Box 50, International Falls, MN 56649] *Perca flavescens* and *Stizostedion vitreum vitreum* in Minnesota.

88-001764 Koslow, J. Anthony. CLIMATE AND FISH RECRUITMENT IN THE NORTHWEST ATLANTIC: RECONSIDERATION OF THE INFLUENCE OF RIVER RUNOFF. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 63-64. 1987. In English with French summ. FR 33(2)
[Oceanogr. Dep., Dalhousie Univ., Halifax, NS, Canada B3H 4J1]

88-001765 Lochmann, S. E.; R. M. Darnell and J. D. McEachran. MECHANISMS OF LARVAL TRANSPORT OF ESTUARINE RELATED FISHES AND INVERTEBRATES OF THE TEXAS COAST. *Am. Zool.* 27(4):9A. 1987. Abstract only. FR 33(2)
[Tex. A&M Univ., College Station]

POPULATION STUDIES, PRODUCTION, RECRUITMENT, ETC. (CONTINUED)

88-001766 Marsh, Paul C. and Daniel R. Langhorst. FEEDING AND FATE OF WILD LARVAL RAZORBACK SUCKER. *Environ. Biol. Fishes* 21(1):59-67. 1988. FR 33(2)
[Cent. Environ. Studies & Dep. Zool., Ariz. State Univ., Tempe 85287] *Xyrauchen texanus* in Arizona and Nevada.

88-001767 McGlade, Jacquie. THE INFLUENCE OF GULF STREAM GYRE ACTIVITY ON RECRUITMENT VARIABILITY IN POLLOCK (*POLLACHIUS VIRENS*). *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 30-40. 1987. In English with French summ. FR 33(2)
[Mar. Fish Div., Bedford Inst. Oceanogr., P. O. Box 1006, Dartmouth, NS, Canada B2Y 4A2]

88-001768 Mosindy, Thomas E.; Walter T. Momot and Peter J. Colby. IMPACT OF ANGLING ON THE PRODUCTION AND YIELD OF MATURE WALLEYES AND NORTHERN PIKE IN A SMALL BOREAL LAKE IN ONTARIO. *N. Am. J. Fish Manage.* 7(4):493-501. 1987. FR 33(2)
[Minist. Nat. Resour., Box 5080, Kenora, ON, Canada P9N 3X9] *Esox lucius* and *Stizostedion vitreum vitreum* in Canada.

88-001769 Perry, R. Ian and Ken T. Frank, editors. ENVIRONMENTAL EFFECTS ON RECRUITMENT TO CANADIAN ATLANTIC FISH STOCKS. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. 65p. 1987. In English with French summ. FR 33(2)
[Biol. Stn., St. Andrews, NB, Canada E0G 2X0]

88-001770 Schmidt, David R.; William B. Griffiths and Larry R. Martin. IMPORTANCE OF ANADROMOUS FISH OVERWINTERING HABITAT IN THE SAGAVANIRKTOK RIVER DELTA, ALASKA. *Alaska Sci. Conf.* 38:153. 1987. Abstract only. FR 33(2)
[LGL Alaska Res. Assoc., Inc., P.O. Box 80607, Fairbanks 99708]

88-001771 Sinnott, Timothy J. and Neil H. Ringler. POPULATION BIOLOGY OF THE BROWN BULLHEAD (*ICTALURUS NEBULOSUS* LESUEUR). *J. Freshwater Ecol.* 4(2):225-234. 1987. FR 33(2)
[NYDEC, 50 Wolf Rd., Albany, NY 12233-4753]

88-001772 Solajarvi, Kalervo. WHY DO VENDACE (*COREGONUS ALBULA* L.) POPULATIONS FLUCTUATE? *Aqua Fenn.* 17(1):17-26. 1987. FR 33(2)
[Game & Fish. Res. Inst., Fish. Div., P.O. Box 193, SF-00131 Helsinki, Finland]

88-001773 Steele, Peter Owen. LIFE HISTORY STRATEGIES OF A NORTH TEMPERATE SALMONID, *SALVELINUS FONTINALIS*, IN POLAR BEAR PROVINCIAL PARK, ONTARIO. *Ph.D. dissertation, Univ. Western Ontario (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(6):1618. 1987. FR 33(2)

88-001774 Swanson, Bruce L. PIKES CREEK/LAKE SUPERIOR STEELHEAD POPULATION: POPULATION DYNAMICS, FISHERY, AND MANAGEMENT ALTERNATIVES. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 125. 29p. 1985. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI]

88-001775 Wyatt, R. J. THE CAUSE OF EXTREME YEAR CLASS VARIATION IN A POPULATION OF ROACH, *RUTILUS RUTILUS* L., FROM A EUTROPHIC LAKE IN SOUTHERN ENGLAND. *J. Fish Biol.* 32(3):409-421. 1988. FR 33(2)
[Fish. Tech. Unit, Welsh Water, Highfield, Priestly Rd., Caernarfon, Gwynedd LL55 1HR, Wales]

SPAWNING HABITS AND MOVEMENTS, FECUNDITY, ETC.

88-001776 Cowan, G. I. McT. and E. M. Baggs. INCIDENCES OF LACUSTRINE SPAWNING OF THE OUANANICHE, *SALMO SALAR*, AND THE BROOK CHARR, *SALVELINUS FONTINALIS*, ON THE AVALON PENINSULA, NEWFOUNDLAND. *J. Fish Biol.* 32(2):311-312. 1988. FR 33(2)
[Dep. Biol., Memorial Univ. Newfoundland, St. John's, NF, Canada A1B 3X9]

88-001777 Hopkins, Ceri L. and Martin J. Unwin. RIVER RESIDENCE OF JUVENILE CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*) IN THE RAKAIA RIVER, SOUTH ISLAND, NEW ZEALAND. *N.Z. J. Mar. Freshwater Res.* 21(2):163-174. 1987. FR 33(2)
[Freshwater Fish. Cent., Minist. Agric. & Fish., P.O. Box 8324, Riccarton, Christchurch, New Zealand]

88-001778 Kingery, Roger W. and Robert J. Muncy. WALLEYE SPAWNING AND MOVEMENTS IN TOMBIGBEE RIVER DRAINAGES. *J. Miss. Acad. Sci.* 33(Suppl.):117. 1988. Abstract only. FR 33(2)
[Drawer BX, Miss. State Univ., Mississippi State 39762] *Stizostedion vitreum.*

88-001779 Leonardsson, Kjell and Per Lundberg. THE CHOICE OF REPRODUCTIVE TACTICS AS A MIXED EVOLUTIONARILY STABLE STRATEGY: THE CASE OF MALE ATLANTIC SALMON (*SALMO SALAR* L.). *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 69-76. 1986. FR 33(2)
[Dep. Anim. Ecol., Univ. Umea, S-901 83 Umea, Sweden] *Salmo salar.*

88-001780 Matsuyama, Michiya; Ricardo Torres Lara and Shuhei Matsuura. JUVENILE BISEXUALITY IN THE RED SEA BREAM, *PAGRUS MAJOR*. *Environ. Biol. Fishes* 21(1):27-36. 1988. FR 33(2)
[Dep. Fish, Fac. Agric., Kyushu Univ., 46-04, Hakozaki, Higashi-ku, Fukuoka 812, Japan]

88-001781 Messieh, S. N. THE EFFECTS OF ENVIRONMENTAL CONDITIONS ON THE TIME OF HERRING ARRIVAL ON THE SPAWNING GROUNDS IN THE GULF OF ST. LAWRENCE. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 17-29. 1987. In English with French summ. FR 33(2)
[Dep. Fish & Oceans, Res. Branch, Gulf Region, P.O. Box 5030, Moncton, NB, Canada E1C 9B6] *Clupea harengus.*

88-001782 Mrowka, Wolfgang and Bernd Schierwater. ENERGY EXPENDITURE FOR MOUTHBROODING IN A CICHLID FISH. *Behav. Ecol. Sociobiol.* 22(3):161-164. 1988. FR 33(2)
[Zool. Inst. Tech. Univ. Braunschweig, Pockelsstr. 10a, D-3300 Braunschweig, West Germany] *Pseudocrenilabrus multicolor.*

88-001783 Pankhurst, Neville W. SPAWNING DYNAMICS OF ORANGE ROUGHY, *HOPLOSTETHUS ATLANTICUS*, IN MID-SLOPE WATERS OF NEW ZEALAND. *Environ. Biol. Fishes* 21(2):101-116. 1988. FR 33(2)
[Leigh Mar. Lab., Univ. Auckland, R.D. Leigh, New Zealand]

88-001784 Sideleva, V. G.; E. B. Karabanov; V. A. Fialkov; N. V. Smirnov; and L. A. Gorbunova. AN ECOLOGICAL APPROACH FOR ASSESSMENT OF THE SPAWNING ENVIRONMENT OF BAIKAL SCULPINS. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):107-116. 1987. FR 33(2)
[Limnol. Inst., Siberian Branch Acad. Sci., USSR, Listvenichnoe on Baykal, Irkutsk Prov., USSR] *Cottocomephorus grewingki, Paracottus kessleri, P. kneri,* and *Batrachocottus baicalensis.*

MOVEMENTS, SEASONAL AND DEPTH DISTRIBUTION, ETC.

88-001785 Cunjak, Richard A. and Geoffrey Power. COVER USE BY STREAM-RESIDENT TROUT IN WINTER: A FIELD EXPERIMENT. *N. Am. J. Fish. Manage.* 7(4):539-544. 1987. FR 33(2)
[Dep. Fish. & Oceans, P.O. Box 5030, Moncton, NB, Canada E1C 9B6]

88-001786 de Ciechomski, Juana D.; Ramiro P. Sanchez and Carlos A. Lasta. [ASSESSMENT OF THE BIOMASS OF ADULT SPAWNERS, VERTICAL DISTRIBUTION AND QUANTITATIVE VARIATION OF THE ANCHOVY (*ENGRAULIS ANCHOITA*) EGG PRODUCTION DURING SPRING 1982.] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 30-48. 1986. In Spanish with Enlish summ. FR 33(2)

88-001787 Douglas, David R. and Larry A. Jahn. RADIOTRACKING HYBRID STRIPED BASS IN SPRING LAKE, ILLINOIS, TO DETERMINE TEMPERATURE AND OXYGEN PREFERENCES. *N. Am. J. Fish. Manage.* 7(4):531-534. 1987. FR 33(2)
[Ill. Nat. Hist. Surv., Havana 62644] *Morone saxatilis* and *M. chrysops*.

88-001788 Euston, E. Terry. SEASONAL DISTRIBUTION OF THE EXOTIC BLUE TILAPIA (*OREOCHROMIS AUREUS*), IN THE LOWER SUSQUEHANNA RIVER. *Proc. Pa. Acad. Sci.* 61(1):86. 1987. Abstract only. FR 33(2)
[RMC Environ. Serv., Drumor, PA 17518]

88-001789 Fisher, J. P. and W. C. Pearcy. MOVEMENTS OF COHO, *ONCORHYNCHUS KISUTCH*, AND CHINOOK, *O. TSHAWYTSCHA*, SALMON TAGGED AT SEA OFF OREGON, WASHINGTON, AND VANCOUVER ISLAND DURING THE SUMMERS 1982-85. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):819-826. 1987. FR 33(2)
[Coll. Oceanogr., Oreg. State Univ., Corvallis 97331]

88-001790 Hurley, Stephen T.; Wayne A. Hubert and John G. Nickum. HABITATS AND MOVEMENTS OF SHOVELNOSE STURGEONS IN THE UPPER MISSISSIPPI RIVER. *Trans. Am. Fish. Soc.* 116(4):655-662. 1987. FR 33(2)
[Div. Wildl., Xenia, OH 45385]

88-001791 Mundahl, Neal D. MOVEMENTS, DENSITY, AND HOME RANGE SIZE OF THE CENTRAL STONEROLLER (*CAMPOSTOMA ANOMALUM*) IN A SMALL OHIO STREAM. *Ohio J. Sci.* 88(2):44. 1988. Abstract only. FR 33(2)
[Dep. Zool., Miami Univ., 4200 E. University Blvd., Middletown, OH 45042]

88-001792 Paller, Michael H. DISTRIBUTION OF LARVAL FISH BETWEEN MACROPHYTE BEDS AND OPEN CHANNELS IN A SOUTHEASTERN FLOODPLAIN SWAMP. *J. Freshwater Ecol.* 4(2):191-200. 1987. FR 33(2)
[Environ. & Chem. Sci., Inc., P.O. Box 1393, Aiken, SC 29802]

88-001793 Smith, Gary E. and Michael E. Aceituno. HABITAT PREFERENCE CRITERIA FOR BROWN, BROOK, AND RAINBOW TROUT IN EASTERN SIERRA NEVADA STREAMS, FINAL REPORT. *Calif. Dep. Fish Game Stream Eval. Rep.* 87-2. 103p. 1987. FR 33(2)
[Dep. Fish & Game, Environ. Serv. Div., Sacramento, CA] *Salmo trutta, S. gairdneri,* and *Salvelinus fontinalis*.

88-001794 Sogard, Susan M.; Donald E. Hoss and John J. Govoni. DENSITY AND DEPTH DISTRIBUTION OF LARVAL GULF MENHADEN, *BREVOORTIA PATRONUS*, ATLANTIC CROAKER, *MICROPOGONIAS UNDULATUS*, AND SPOT, *LEIOSTOMUS XANTHURUS*, IN THE NORTHERN GULF OF MEXICO. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):601-609. 1987. FR 33(2)
[Rutgers Mar. Field Stn., P.O. Box 41, Tuckerton, NJ 08087]

FOODS/FEEDING

88-001795 Blonder, Barbara I. and William S. Alevizon. PREY DISCRIMINATION AND ELECTRORECEPTION IN THE STINGRAY *DASYATIS SABINA*. *Copeia* 1988(1):33-36. 1988. FR 33(2)
[Dep. Nat. Resour., Bur. Mar. Res., 13365 Overseas Hwy., Suite 103, Marathon, FL 33050]

88-001796 Caron, F. [PREDATION OF ATLANTIC SALMON PARR (*SALMO SALAR*) BY LAKE TROUT (*SALVELINUS NAMAYCUSH*).] *Nat. Can. (Que.)* 114(2):211-215. 1987. In French with English summ. FR 33(2)
[Dir. Faune Aquat., Minist. Loisir Chasse & Peche, 150, Boul. Saint-Cyrille E., 5^{e} etage, Quebec, PQ, Canada G1R 4Y1]

88-001797 Costa, Wilson J. E. M. FEEDING HABITS OF A FISH COMMUNITY IN A TROPICAL COASTAL STREAM, RIO MATO GROSSO, BRAZIL. *Stud. Neotrop. Fauna Environ.* 22(3):145-153. 1987. FR 33(2)
[Dep. Biol. Mar., Univ. Federal R.J., CCS Cid. Universitaria, 21910 Rio de Janeiro, Brazil]

88-001798 Euzen, O. FOOD HABITS AND DIET COMPOSITION OF SOME FISH OF KUWAIT. *Kuwait Bull. Mar. Sci.* 1987(9):65-85. 1987. In English with Arabic summ. FR 33(2)
[Ifremer 66, Ave. D'lena 75116 Paris, France]

88-001799 Field-Dodgson, M. S. SIZE CHARACTERISTICS AND DIET OF EMERGENT CHINOOK SALMON IN A SMALL, STABLE, NEW ZEALAND STREAM. *J. Fish Biol.* 32(1):27-40. 1988. FR 33(2)
[Fish. Res. Div., Minist. Agric. & Fish., P.O. Box 8324, Riccarton, Christchurch, New Zealand] *Oncorhynchus tshawytscha*.

88-001800 Gilbert, M. and D. Gascon. [CONSUMPTION OF THE NORTHERN SHRIMP (*PANDALUS BOREALIS* KOYER) BY COD (*GADUS MORHUA* L.) IN THE NORTHWESTERN GULF OF ST. LAWRENCE.] *Nat. Can. (Que.)* 114(2):203-209. 1987. In French with English summ. FR 33(2)
[Dir. Sci. Biol., Inst. Maurice Lamontagne, Minist. Peches & Oceans, 850 Route Mer, Mont-Joli, PQ, Canada G5H 3Z4]

88-001801 Gilyarov, A. M. FACTORS DETERMINING PREY SELECTION BY FRESHWATER FISHES FEEDING ON ZOOPLANKTON. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):149-160. 1987. FR 33(2)
[Biol. Fac., Moscow State Univ., Moscow, USSR]

88-001802 Grimm, Nancy B. FEEDING DYNAMICS, NITROGEN BUDGETS, AND ECOSYSTEM ROLE OF A DESERT STREAM OMNIVORE, *AGOSIA CHRYSOGASTER* (PISCES: CYPRINIDAE). *Environ. Biol. Fishes* 21(2):143-152. 1988. FR 33(2)
[Dep. Zool., Ariz. State Univ., Tempe 85287]

88-001803 Hepworth, Dale K. and Daniel J. Duffield. INTERACTIONS BETWEEN AN EXOTIC CRAYFISH AND STOCKED RAINBOW TROUT IN NEWCASLTE RESERVOIR, UTAH. *N. Am. J. Fish. Manage.* 7(4):554-561. 1987. FR 33(2)
[Dep. Nat. Resour., Div. Wildl. Resour., Cedar City, UT 84720] *Salmo gairdneri*

88-001804 Livingston, Mary E. FOOD RESOURCE USE AMONG FIVE FLATFISH SPECIES (PLEURONECTIFORMES) IN WELLINGTON HARBOUR, NEW ZEALAND. *N.Z. J. Mar. Freshwater Res.* 21(2):281-293. 1987. FR 33(2)

FOODS/FEEDING (CONTINUED)

88-001804 CONTINUED
[Fish. Res. Cent., Minist. Agric. & Fish., P.O. Box 297, Wellington, New Zealand] *Rhombosolea plebeia, R. leporina, Arnoglossus scapha* and *Pelotretis flavilatus*.

88-001805 Loch, John J. and David R. Miller. DISTRIBUTION AND DIET OF SEA-RUN CUTTHROAT TROUT CAPTURED IN AND ADJACENT TO THE COLUMBIA RIVER PLUME, MAY-JULY 1980. *Northwest Sci.* 62(1):41-48. 1988. FR 33(2)
[Dep. Wildl., Fish Manage. Div., 600 N. Capitol Way, Olympia, WA 98504] *Salmo clarki clarki*.

88-001806 Main, M. R. and M. J. Winterbourn. DIET AND FEEDING OF KOARO (*GALAXIAS BREVIPINNIS*) IN FORESTED, SOUTH WESTLAND STREAMS. *Mauri Ora* No. 14. p. 77-86. 1987. FR 33(2)
[Dep. Zool., Univ. Canterbury, Christchurch, New Zealand]

88-001807 Martyniak, Andrzej; Marian Stanislaw Jerzyk and Zdenek Adamek. THE FOOD OF BREAM (*ABRAMIS BRAMA*) IN THE PIERZCHALY RESERVOIR, (POLAND). *Folia Zool.* 36(3):273-280. 1987. In English with Russian summ. FR 33(2)
[Dep. Fish., Acad. Agric. & Technol., 10-957, Olsztyn-Kortowo, Poland] *Abramis brama* and *Rutilus rutilus*.

88-001808 Matsumiya, Yoshiharu and Masayuki Imai. ECOLOGY AND ABUNDANCE OF CONGER EEL, *CONGER MYRIASTER* IN SHIJIKI BAY, HIRADO ISLAND. *Nippon Suisan Gakkaishi* 53(12):2127-2131. 1987. In English. FR 33(2)
[Ocean Res. Inst., Univ. Tokyo, Tokyo 164, Japan]

88-001809 Muir, William D.; Robert L. Emmett and Robert J. McConnell. DIET OF JUVENILE AND SUBADULT WHITE STURGEON IN THE LOWER COLUMBIA RIVER AND ITS ESTUARY. *Calif. Fish Game* 74(1):49-54. 1988. FR 33(2)
[Coastal Zone & Estuarine Studies Div., NAFC, NOAA, 2725 Montlake Blvd. E., Seattle, WA 98112] *Acipenser transmontanus* in Washington and Oregon.

88-001810 Novoselov, A. P. FOOD RELATIONSHIPS OF THE INTRODUCED PELED, *COREGONUS PELED*, WITH THE INDIGENOUS ICHTHYOFAUNA UNDER LAKE AND RIVERINE CONDITIONS IN ARKHANGEL PROVINCE. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):161-169. 1987. FR 33(2)

88-001811 Okeyo, Daniel Okoth. GROWTH OF *OREOCHROMIS AUREUS* (TELEOSTEI: CICHLIDAE) ON DIETS OF THREE AQUATIC MACROPHYTES. *Ph.D. dissertation, North. Ariz. Univ.* 111p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2184. 1988. FR 33(2)

88-001812 Petridis, D. and K. O'Hara. ASSESSMENT OF DIET IN TWO CYPRINIDS USING A MODIFIED STOMACH-FLUSHING TECHNIQUE. *Aquacult. Fish. Manage.* 19(1):63-68. 1988. FR 33(2)
[Monastiriou 19, Thessaloniki, Greece] *Tinca tinca* and *Ctenopharyngodon idella*.

88-001813 Ponton, D. and S. Stroffek. [DIET OF ROACH (*RUTILUS RUTILUS* (L.)) ALEVINS IN A PORT OF LAKE LEMAN.] *Swiss J. Hydrol.* 49(3):329-342. 1987. In French with English summ. FR 33(2)
[Seenforschungslab. EAWAG/ETH, CH-6047 Kastanienbaum, Switzerland]

88-001814 Rosecchi, Elisabeth. [THE FEEDING OF *DIPLODUS ANNULARIS, DIPLODUS SARGUS, DIPLODUS VULGARIS* AND *SPARUS AURATA* (PISCES, SPARIDAE) IN THE GULF OF LIONS AND THE COASTAL LAGOONS.] *Rev. Trav. Inst. Peches*

FOODS/FEEDING (CONTINUED)

88-001814 CONTINUED *Marit.* 49(3/4):125-141. 1987. In French with English summ. FR 33(2)
[Lab. Ichthyol., U.S.T.L., 34060 Montpellier Cedex, France]

88-001815 Rosecchi, Elisabeth and Yvon Nouaze. [COMPARISON OF FIVE DIETARY INDICES USED IN STOMACH CONTENT ANALYSIS.] *Rev. Trav. Inst. Peches Marit.* 49(3/4):111-123. 1987. In French with English summ. FR 33(2)
[Lab. Ichthyol., U.S.T.L. 34060 Montpellier Cedex, France]

88-001816 Rosenthal, Richard J.; Victoria Moran-O'Connell and Margaret C. Murphy. FEEDING ECOLOGY OF TEN SPECIES OF ROCKFISHES (SCORPAENIDAE) FROM THE GULF OF ALASKA. *Calif. Fish Game* 74(1):16-37. 1988. FR 33(2)
[P.O. Box 1044, Cardiff by the Sea, CA 92007] *Sebastes melanops, S. flavidus, S. ciliatus, S. entomelas, S. emphaeus, S. nebulosus, S. ruberrimus, S. maliger, S. caurinus,* and *S. nigrocinctus.*

88-001817 Seale, Dianne B. and Frederick P. Binkowski. VULNERABILITY OF EARLY LIFE INTERVALS OF *COREGONUS HOYI* TO PREDATION BY A FRESHWATER MYSID, *MYSIS RELICTA. Environ. Biol. Fishes* 21(2):117-125. 1988. FR 33(2)
[Dep. Biol. Sci., Univ. Wis., Box 413, Milwaukee 53201]

88-001818 Tudorancea, C.; C. H. Fernando and J. C. Paggi. FOOD AND FEEDING ECOLOGY OF *OREOCHROMIS NILOTICUS* (LINNAEUS, 1758) JUVENILES IN LAKE AWASSA (ETHIOPIA). *Arch. Hydrobiol.* Suppl. 79(2/3):267-289. 1988. FR 33(2)
[Dep. Biol., Univ. Waterloo, Waterloo, ON, Canada N2L 3G1]

88-001819 Walter, Claudia B.; D. C. Duffy; J. Cooper and W. Suter. CAPE ANCHOVY IN SWIFT TERN DIETS AND FISHERY LANDINGS IN THE BENGUELA UPWELLING REGION. *S. Afr. J. Wildl. Res.* 17(4):139-141. 1987. In English with Afrikaans summ. FR 33(2)
[Percy FitzPatrick Inst. African Ornithol., Univ. Cape Town, Rondebosch 7700, South Africa] *Engraulis japonicus.*

88-001820 Winkler, Patricia; Bruce Smith and Robert Denoncourt. DOMINANT GENERA IN A THERMAL EFFLUENT AND IN STOMACHS OF BLUE TILAPIA, *OREOCHROMIS AUREUS,* SUSQUEHANNA RIVER, PENNSYLVANIA. *Proc. Pa. Acad. Sci.* 61(1):97-98. 1987. Abstract only. FR 33(2)
[Biol. Dep., York Coll., York, PA 17403]

88-001821 Zarbalieva, T. S. INFORMATION ON THE FEEDING OF THE KUTUM, *RUTILUS FRISII KUTUM,* ALONG THE WESTERN COAST OF THE SOUTHERN CASPIAN SEA. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):170-173. 1987. FR 33(2)
[Azerbaydzhan Sect., Cent. Sci.-Res. Inst. Sturgeon Fish.-Azerb. otd. TSNIORkh, Baku, USSR]

AGE AND GROWTH

88-001822 Baldevarona, Rodolfo Bermudo. EFFECTS OF FEEDING AND STOCKING DENSITY ON GROWTH AND SURVIVAL OF SPOT, *LEIOSTOMUS XANTHURUS* LACEPEDE. *Ph.D. dissertation, Univ. S.C.* 128p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2179. 1988. FR 33(2)

88-001823 Bevan, David J. and Donald L. Kramer. LACK OF A DEPTH EFFECT ON THE GROWTH OF THE AIR-BREATHING CATFISH, *CLARIAS MACROCEPHALUS. Can. J. Fish. Aquat. Sci.* 44(8):1507-1510. 1987. In English with French summ.

AGE AND GROWTH (CONTINUED)

88-001823 CONTINUED FR 33(2)
[Dep. Biol., McGill Univ., 1205 Ave. Docteur Penfield, Montreal, PQ, Canada H3A 1B1]

88-001824 Brothers, Edward B. and C. P. Mathews. APPLICATION OF OTOLITH MICROSTRUCTURAL STUDIES TO AGE DETERMINATION OF SOME COMMERCIALLY VALUABLE FISH OF THE ARABIAN GULF. *Kuwait Bull. Mar. Sci.* 1987(9):127-157. 1987. In English with Arabic summ. FR 33(2)
[EFS Consult., 3 Sunset West, Ithaca, NY 14850]

88-001825 de Ciechomski, Juana D.; Ramiro P. Sanchez; Gabriel Alespeiti and Hector Regidor. [STUDY ON GROWTH IN WEIGHT AND CONDITION FACTOR OF LARVAL ANCHOVY *ENGRAULIS ANCHOITA* HUBBS & MARINI. REGIONAL, SEASONAL AND YEARLY VARIATIONS. *Rev. Invest. Desarrollo Pesq.* No. 5. p. 183-193. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-001826 Deegan, Linda A. and Bruce A. Thompson. GROWTH RATE AND LIFE HISTORY EVENTS OF YOUNG-OF-THE-YEAR GULF MENHADEN AS DETERMINED FROM OTOLITHS. *Trans. Am. Fish. Soc.* 116(4):663-667. 1987. FR 33(2)
[Dep. For. & Wildl. Manage., Univ. Mass., Amherst 01003] *Brevoortia patronus.*

88-001827 Elliott, J. M. GROWTH, SIZE, BIOMASS AND PRODUCTION IN CONTRASTING POPULATIONS OF TROUT *SALMO TRUTTA* IN TWO LAKE DISTRICT STREAMS. *J. Anim. Ecol.* 57(1):49-60. 1988. FR 33(2)
[Freshwater Biol. Assoc., Windermere Lab., Ambleside, Cumbria, England]

88-001828 Fable, William A., Jr.; Allyn G. Johnson and Lyman E. Barger. AGE AND GROWTH OF SPANISH MACKEREL, *SCOMBEROMORUS MACULATUS*, FROM FLORIDA AND THE GULF OF MEXICO. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):777-783. 1987. FR 33(2)
[Southeast Fish. Cent. Lab., NMFS, NOAA, 3500 Delwood Beach Rd., Panama City, FL 32407-7499]

88-001829 Henrich, Sabine. VARIATION IN OFFSPRING SIZES OF THE POECILIID FISH *HETERANDRIA FORMOSA* IN RELATION TO FITNESS. *Oikos* 51(1):13-18. 1988. FR 33(2)
[Zool. Inst., Rheinsprung 9, CH-4051 Basel, Switzerland]

88-001830 Hill, Kevin T. AGE AND GROWTH ESTIMATION OF THE PACIFIC BLUE MARLIN, *MAKAIRA NIGRICANS* LACEPEDE, USING OTOLITHS, VERTEBRAE, AND DORSAL AND ANAL FIN SPINES. *Pac. Sci.* 40(1-4):116-117. 1986. Abstract only. FR 33(2)
[Univ. Hawaii, Dep. Zool., Honolulu]

88-001831 Kazakov, R. V. and A. N. Lyashenko. EFFECT OF DURATION OF RIVERINE AND MARINE PERIODS OF LIFE ON THE SIZE OF FEMALES AND THEIR EGGS OF ATLANTIC SALMON, *SALMO SALAR*, AND SEA TROUT, *S. TRUTTA*. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):124-134. 1987. FR 33(2)
[State Lake & River Fish. Res. Inst.-GosNIROKH, Leningrad, USSR]

88-001832 Kelley, D. F. AGE DETERMINATION IN BASS AND ASSESSMENT OF GROWTH AND YEAR-CLASS STRENGTH. *J. Mar. Biol. Assoc. U.K.* 68(1):179-214. 1988. FR 33(2)
[Old Farm, Trebetherich Wadebridge, Cornwall PL27 6SB, England] *Dicentrarchus labrax.*

AGE AND GROWTH (CONTINUED)

88-001833 Kozel, Steven J. and Wayne A. Hubert. AGE ESTIMATES OF BROOK TROUT FROM HIGH-ELEVATION ROCKY MOUNTAIN STREAMS USING SCALES AND OTOLITHS. *Northwest Sci.* 61(4):216-219. 1987. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, Univ. Wyo., Laramie 82070] *Salvelinus fontinalis.*

88-001834 Lai, Han-Lin; Donald R. Gunderson and Loh Lee Low. AGE DETERMINATION OF PACIFIC COD, *GADUS MACROCEPHALUS,* USING FIVE AGEING METHODS. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):713-722. 1987. FR 33(2)
[Cent. Quant. Sci., HR-20, Univ. Wash., Seattle 98195]

88-001835 Michaud, M.; J.-D. Dutil and J. J. Dodson. DETERMINATION OF THE AGE OF YOUNG AMERICAN EELS, *ANGUILLA ROSTRATA,* IN FRESH WATER, BASED ON OTOLITH SURFACE AREA AND MICROSTRUCTURE. *J. Fish Biol.* 32(2):179-189. 1988. FR 33(2)
[Dutil: Minist. Peches Oceans, 85 Rt. Mer, Mont-Joli, PQ, Canada G5H 3Z4]

88-001836 Moksness, Erlend; John Butler and Richard L. Radtke. ESTIMATION OF AGE AND GROWTH RATE IN NORWEGIAN SPRING SPAWNING HERRING (*CLUPEA HARENGUS L.*) LARVAE AND JUVENILES. *Sarsia* 72(3-4):341-342. 1987. FR 33(2)
[Flodevigen Biol. Stn., N-4800 Arendal, Norway]

88-001837 Noltie, Douglas B. COMPARATIVE GROWTH AND CONDITION OF NORTHERN STREAM-DWELLING ROCK BASS, *AMBLOPLITES RUPESTRIS* (RAFINESQUE). *Hydrobiologia* 160(3):199-206. 1988. FR 33(2)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-001838 Treasurer, James W. THE DISTRIBUTION AND GROWTH OF LACUSTRINE 0+ PERCH, *PERCA FLUVIATILIS. Environ. Biol. Fishes* 21(1):37-44. 1988. FR 33(2)
[Dep. Zool., Univ. Aberdeen, Tillydrone Ave., Aberdeen, Scotland]

88-001839 Tsukamoto, Katsumi and Takeshi Kajihara. AGE DETERMINATION OF AYU WITH OTOLITH. *Nippon Suisan Gakkaishi* 53(11):1985-1997. 1987. In English. FR 33(2)
[Ocean Res. Inst., Univ. Tokyo, Nakano, Tokyo 164, Japan]

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC.

88-001840 Akenhead, Scott A. DIFFUSION AND REDFISH LARVAE ON FLEMISH CAP. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 15-16. 1987. In English with French summ. FR 33(2)
[Dep. Fish. & Oceans, P.O. Box 5667, St. John's, NF, Canada A1C 5X1] *Sebastes* spp.

88-001841 Al-Hassan, Jassim M.; David A. Clayton; Martha Thomson and Richard S. Criddle. TAXONOMY AND DISTRIBUTION OF ARIID CATFISHES FROM THE ARABIAN GULF. *J. Nat. Hist.* 22(2):473-487. 1988. FR 33(2)
[Dep. Biochem. & Zool., Kuwait Univ., Fac. Sci., P.O. Box 5969, 13060-Safat, Kuwait] *Arius thalassinus, A. dussumieri, A. tenuispinis,* and *A. bilineatus*

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

88-001842 Bayley, Peter B. FACTORS AFFECTING GROWTH RATES OF YOUNG TROPICAL FLOODPLAIN FISHES: SEASONALITY AND DENSITY-DEPENDENCE. *Environ. Biol. Fishes* 21(2):127-142. 1988. FR 33(2)
[Nat. Hist. Surv., 607 East Peabody Dr., Champaign, IL 61820] *Acarichthys heckeli, Colossoma macropomum, Triportheus albus, T. angulatus, T. elongatus, Brycon melanopterus, Anchoviella guianensis, Semaprochilodus taeniurus, S. insignis, Prochilodus nigricans, Potamorhina latior,* and *Curimata kneri.*

88-001843 Bleher, Heiko. THE SECOND DARIEN BREAKTHROUGH, PART II. *Trop. Fish Hobbyist* 36(6):56-68. 1988. FR 33(2)

88-001844 Busack, Craig A.; Kenneth W. Thompson and Ron J. Garavelli. FLORIDA BASS ALLELE FREQUENCIES IN MISSISSIPPI LARGEMOUTH BASS POPULATIONS: A PRELIMINARY SURVEY. *J. Miss. Acad. Sci.* 32:61-69. 1987. FR 33(2)
[Dep. Biol., Univ. Miss., University 38677] *Micropterus salmoides.*

88-001845 Cassia, Maria Cristina and Clelia Isabel Booman. [DISTRIBUTION OF ICHTHYOPLANKTON IN THE ARGENTINE SEA DURING 1981-1982]. *Physis (B. Aires) Secc. A.* 43(105):91-111. 1985. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina] *Engraulis anchoita.*

88-001846 Chervinski, Jonathan. *TILAPIA ZILLII* (GERVAIS) IN THE MEDITERRANEAN. *Bamidgeh* 39(4):133-134. 1987. FR 33(2)
[Fish & Aquacult. Res. Stn., Dor, Mobile Post 308200, Israel]

88-001847 Coad, Brian W. CHECKLIST OF THE FISHES OF THE OTTAWA DISTRICT. *Trail Landscape* 21(1):40-60. 1986. FR 33(2)
[Ichthyol. Sect., Natl. Mus. Nat. Sci., Ottawa, ON, Canada K1A 0M8]

88-001848 Estes, William M. and Bruce Gebhardt. FISHES OF THE LOWER SUSQUEHANNA AND TRIBUTARIES OF THE NORTHERN CHESAPEAKE, PART III. *Am. Curr.* p. 16-19. 1987. FR 33(2)
[Prospect Park, PA] *Semotilus atromaculatus, Rhinichthys atrotulus, Cyprinus carpio, Exoglossum maxillingua, E. laurae, Nocomis micropogon,* and *Catostomus commersoni.*

88-001849 Gilmore, R. Grant. SUBTROPICAL-TROPICAL SEAGRASS COMMUNITIES OF THE SOUTHEASTERN UNITED STATES: FISHES AND FISH COMMUNITIES. *Fla. Mar. Res. Publ.* No. 42. p. 117-137. 1987. FR 33(2)
[Div. Mar. Sci., Harbor Branch Oceanogr. Inst., Inc., 5600 Old Dixie Hwy., Fort Pierce, FL 33450]

88-001850 Golani, D. ON DEEP-WATER SHARKS CAUGHT OFF THE MEDITERRANEAN COAST OF ISRAEL. *Isr. J. Zool.* 34(1-2):23-31. 1986/87. FR 33(2)
[Dep. Zool., Hebrew Univ., 91904 Jerusalem, Israel] *Somniosus rostratus Centrophorus granulosis, Dalatias licha,* and *Galeus melastomus.*

88-001851 Gon, Ofer. THE FISHES OF THE GENUS *BATHYLAGUS* OF THE SOUTHERN OCEAN. *J. L. B. Smith Inst. Ichthyol. Spec. Publ.* No. 43. 22p. 1987. FR 33(2)
[J.L.B. Smith Inst. Ichthyol., Private Bag 1015, Grahamstown 6140, South Africa]

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

88-001852 Gon, Ofer. THE CARDINAL FISHES (PERCIFORMES; APOGONIDAE) COLLECTED IN THE MALDIVE ISLANDS DURING THE *XARIFA* EXPEDITION (1957/58). *J. L. B. Smith Inst. Ichthyol. Spec. Publ.* No. 42. 18p. 1987. FR 33(2)
[J.L.B. Smith Inst. Ichthyol., Private Bag 1015, Grahamstown 6140, South Africa]

88-001853 Gordina, A. D. and V. B. Bladimirtsev. DISTRIBUTION OF ICHTHYOPLANKTON IN THE REGIONS OF BOTTOM ELEVATIONS IN THE TROPICAL PART OF THE INDIAN OCEAN. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):79-84. 1987. FR 33(2)
[Inst. Biol. South Seas, Acad. Sci. Ukrainian SSR-InBYUM, Sevastopol, USSR]

88-001854 Gorman, Owen T. A SURVEY OF THE FISHES AND MACROINVERTEBRATES OF SOME SMALL STREAMS IN COOK, LAKE, AND DUPAGE COUNTIES, ILLINOIS. *Trans. Ill. State Acad. Sci.* 80(3-4):253-272. 1987. FR 33(2)
[Dep. Biol., Memphis State Univ., Memphis, TN 38152]

88-001855 Gorman, Owen T. FISHES AND AQUATIC INSECTS OF NIPPERSINK CREEK, McHENRY COUNTY, ILLINOIS. *Trans. Ill. State Acad. Sci.* 80(3-4):233-252. 1987. FR 33(2)
[Dep. Biol., Memphis State Univ., Memphis, TN 38152]

88-001856 Hubbard, Walter D. DISTRIBUTION AND DIVERSITY OF FISHES IN THE NOXUBEE RIVER DRAINAGE, MISSISSIPPI. *J. Miss. Acad. Sci.* 32:19-29. 1987. FR 33(2)

88-001857 Knight, S. S. and C. M. Cooper. FISHES OF OTOUCALOFA CREEK, MISSISSIPPI PRIOR TO MAJOR CHANNEL MODIFICATIONS. *J. Miss. Acad. Sci.* 32:31-38. 1987. FR 33(2)
[USDA-ARS Sediment Lab., Oxford, MS] *Etheostoma* and *Notropis*.

88-001858 Leis, Jeffrey M.; Barry Goldman and Shoji Ueyanagi. DISTRIBUTION AND ABUNDANCE OF BILLFISH LARVAE (PISCES: ISTIOPHORIDAE) IN THE GREAT BARRIER REEF LAGOON AND CORAL SEA NEAR LIZARD ISLAND, AUSTRALIA. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):757-765. 1987. FR 33(2)
[Div. Vertebr. Zool., Australian Mus., P.O. Box A285, Sydney South, N.S.W. 2000, Australia]

88-001859 Loftus, William F. and James A. Kushlan. FRESHWATER FISHES OF SOUTHERN FLORIDA. *Bull. Fla. State Mus. Biol. Sci.* 31(4):149-343. 1987. FR 33(2)
[Fla. State Mus., Univ. Fla., Gainesville 32611]

88-001860 Mai Dinh Yen and Nguyen van Trong. SPECIES COMPOSITION AND DISTRIBUTION OF THE FRESHWATER FISH FAUNA OF SOUTHERN VIETNAM. *Hydrobiologia* 160(1):45-51. 1988. FR 33(2)
[INES Biol., RP 358 Tlemcen, Algeria]

88-001861 Minchin, D. A RECORD OF THE DEEP-SEA ANGLERFISH, *CRYPTOSARAS COUESI* GILL, FROM THE NORTH-EASTERN ATLANTIC. *J. Fish Biol.* 32(2):313. 1988. FR 33(2)
[Fish. Res. Cent., Dep. Tourism, Fish. & For., Abbotstown, Dublin 15, Ireland]

88-001862 Minchin, D. and Alwyne Wheeler. A NEW RECORD FOR THE LANCETFISH, *ALEPISAURUS FEROX* LOWE (OSTEICHTHYS: SCOPELIFORMES: ALEPISAURIDAE), IN THE NORTH-EASTERN ATLANTIC. *J. Fish Biol.* 32(3):489-491. 1988. FR 33(2)

GEOGRAPHICAL DISTRIBUTION, FISH SURVEYS, ETC. (CONTINUED)

88-001862 CONTINUED
[Fish. Res. Cent., Dep. Tourism, Fish. & For., Abbotstown, Dublin 15, Ireland]

88-001863 Minchin, D. OBSERVATIONS ON THE SOUTHERN DISTRIBUTION OF THE JELLYCAT, *ANARHICHAS DENTICULATUS* KROYER. *J. Fish Biol.* 32(1):151-152. 1988. FR 33(2)
[Fish. Res. Cent., Dep. Mar., Abbotstown, Dublin 15, Ireland]

88-001864 Nemtzov, Simon C.; John E. McCosker and Lisa M. Albert-Nemtzov. FIRST RECORD OF THE SNAKE-EEL *BRACHYSOMOPHIS CIRRHOCHILUS* (PISCES: OPHICHTHIDAE) IN THE RED SEA. *Isr. J. Zool.* 34(1-2):13-14. 1986/87. FR 33(2)
[Qibbuz Rosh Zurim, D.N. Tzfon Yehuda 90938, Israel]

88-001865 Perez, Sergio Mussot and Albert M. van der Heiden. RANGE EXTENSIONS OF FOUR SPECIES OF BOTHID FLATFISHES ON THE PACIFIC COAST OF AMERICA. *Rev. Biol. Trop.* 33(1):71-73. 1985. In English with Spanish summ. FR 33(2)
[Inst. Cienc. Mar. Limnol., Estac. Mazatlan, Univ. Nac. Autonoma Mexico, Mazatlan, Mexico] *Etropus peruvianus, Syacium latifrons, Hippoglossina bollmani,* and *Citharichthys gordae.*

88-001866 Raquel, Paul F. RECORD OF THE CHAMELEON GOBY, *TRIDENTIGER TRIGONOCEPHALUS,* FROM THE SACRAMENTO-SAN JOAQUIN DELTA. *Calif. Fish Game* 74(1):60-61. 1988. FR 33(2)
[Bay Delta Project, Dep. Fish & Game, 4001 N. Wilson Way, Stockton, CA 95205]

88-001867 Schaefer, Kurt M. SECOND RECORED OF THE KAWAKAWA, *EUTHYNNUS AFFINIS,* FROM THE EASTERN PACIFIC OCEAN. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):647-648. 1987. FR 33(2)
[Fish. Res. Branch, Dep. Fish & Oceans, P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

88-001868 Thresher, Ronald E. LATITUDINAL VARIATION IN EGG SIZES OF TROPICAL AND SUB-TROPICAL NORTH ATLANTIC SHORE FISHES. *Environ. Biol. Fishes* 21(1):17-25. 1988. FR 33(2)
[CSIRO Mar. Lab., G.P.O. Box 1538, Hobart, Tasm. 7001, Australia]

88-001869 Van Utrecht, W. L. and C. N. Van Utrecht-Cock. *SERRIVOMER BEANI* GILL & RYDER, 1884 (PISCES, ANGUILLIFORMES, SERRIVOMERIDAE): SOME ASPECTS OF SEASONAL VARIATION IN NUMBERS AND DISTRIBUTION IN THE MID NORTH ATLANTIC. *Bijdr. Dierkd.* 57(1):53-58. 1987. In English with French summ. FR 33(2)
[Inst. Taxon. Zool., Univ. Amsterdam, P.O. Box 20125, 1000 HC Amsterdam, Netherlands]

ABUNDANCE, FACTORS OF; SURVIVAL AND MORTALITY

88-001870 Hvidsten, N. A. and L. P. Hansen. INCREASED RECAPTURE RATE OF ADULT ATLANTIC SALMON, *SALMO SALAR* L., STOCKED AS SMOLTS AT HIGH WATER DISCHARGE. *J. Fish Biol.* 32(1):153-154. 1988. FR 33(2)
[Dir. Nat. Manage., Tungasletta 2, 7004 Trondheim, Norway]

ABUNDANCE, FACTORS OF; SURVIVAL AND MORTALITY (CONTINUED)

88-001871 Jones, G. P. SOME INTERACTIONS BETWEEN RESIDENTS AND RECRUITS IN TWO CORAL REEF FISHES. *J. Exp. Mar. Biol. Ecol.* 114(2,3):169-182. 1987. FR 33(2)
[Dep. Zool., Univ. Auckland, Private Bag, Auckland, New Zealand] *Dascyllus aruanus* and *Pomacentrus amboinensis* in Australia.

88-001872 Mitzner, Larry R. UTILIZATION OF THE FORAGE FISH POPULATION BY PREDATORS AT LAKE RATHBUN, IOWA. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Dan Avyle, editors.* p. 312. 1986. Abstact only. FR 33(2)
[Conserv. Comm., RR 1, Box 209, Chariton, IA 50049] *Morone chrysops, Stizostedion vitreum,* and *Pomonxis*

IDENTIFICATION, KEYS, CLASSIFICATION

88-001873 Badcock, J. EVIDENCE FOR THE ASSIGNMENT OF *DOLICHOPTERYX BRACHYRHYNCHUS* PARR TO THE GENUS *BATHYLYCHNOPS* COHEN (PISCES, OPISTHOPROCTIDAE). *J. Fish Biol.* 32(3):423-432. 1988. FR 33(2)
[17 High St., Bonsall, Matlock, Derbyshire DE4 2AS, England]

88-001874 Balushkin, A. V. and E. A. Tarakanov. TAXONOMIC STATUS OF *PSEUDOTREMATOMUS CENTRONOTUS* (REGAN, 1914) (NOTOTHENIIDAE). *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):56-62. 1987. FR 33(2)
[Zool. Inst., Acad. Sci. USSR-ZIN, Leningrad, USSR] *Pseudotrematomus centronotus* and *P. pennellii.*

88-001875 Bath, Hans. [*HYPOSOBLENNIUS MINUTUS* MEEK & HILDEBRAND, 1928: A LARVAL STAGE OF *PARAHYPSOS PIERSONI* (GILBERT & STARKS, 1904) (TELEOSTEI, BLENNIIDAE). *Zool. Anz.* 219(5/6):324-330. 1987. In German with English summ. FR 33(2)
[Luisenstr. 45, D-6780 Pirmasens, West Germany]

88-001876 Ben-Tuvia, Adam and Ethelwynn Trewavas. *ATROBUCCA GENIAE,* A NEW SPECIES OF SCIAENID FISH FROM THE GULF OF ELAT (GULF OF 'AQABA), RED SEA. *Isr. J. Zool.* 34(1-2):15-21. 1986/87. FR 33(2)
[Dep. Zool., Hebrew Univ., 91904 Jerusalem, Israel]

88-001877 Bruss, Rainer. [*URANOSCOPUS DAHLAKENSIS* N. SP. AND RANGE EXTENSION OF *U. SCABER* LINNAEUS 1758 IN THE RED SEA.] *Senckenb. Biol.* 68(1/3):49-57. 1987. In German with English summ. FR 33(2)
[Konrad-Adenauer-Str. 42, D-5130 Geilenkirchen, West Germany]

88-001878 Bruss, Rainer. [DEEP-SEA FISHES OF THE RED SEA. XIII *URANOSCOPUS MARISRUBRI* N. SP. IN THE CENTRAL AND NORTHERN RED SEA.] *Senckenb. Biol.* 68(1/3):39-48. 1987. In German with English summ. FR 33(2)
[Konrad-Adenauer-Str. 42, D-5130 Geilenkirchen, West Germany]

88-001879 Burgess, Warren E. INTRODUCING - CATFISHES OF THE WORLD! *Trop. Fish Hobbyist* 36(8):84-85. 1988. FR 33(2)

88-001880 Bussing, William A. *ROEBOIDES ILSEAE,* N. SP., A NEW SCALE-EATING CHARACID FISH FROM COSTA RICA. *Rev. Biol. Trop.* 33(1):45-50. 1985. FR 33(2)

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

88-001880 CONTINUED
[Escuela Biol. & Cent. Invest. Cienc. Mar & Limnol., Univ. Costa Rica, San Jose, Costa Rica]

88-001881 Carpenter, Kent. PARADIGM CLASH IN THE SYSTEMATIC TRIUMVIRATE: CLASSIFICATIONS OF THE CAESIONIDAE (PISCES: LUTJANOIDEA). *Pac. Sci.* 39(4):381-382. 1988. Abstract Only. FR 33(2)

88-001882 Cavender, Ted M. and Miles M. Coburn. RELATIONSHIPS OF THE CYPRINID GENUS *HYBOGNATHUS*. *Ohio J. Sci.* 88(2):8. 1988. Abstract only. FR 33(2)
[Ohio State Univ., Columbus 43210] *Hybognathus, Dionda,* and *Campostoma.*

88-001883 Chiu, Tai-Sheng. PHYLOGENY AND ZOOGEOGRAPHY OF GLYPTOCEPHALINES (PISCES: PLEURONECTIDAE). *Ph.D. dissertation, Oreg. State Univ.* 295p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2230-2231. 1988. FR 33(2)

88-001884 Compagno, Leonard J. V. and John E. Randall. *RHINOBATOS PUNCTIFER*, A NEW SPECIES OF GUITARFISH (RHINOBATIFORMES: RHINOBATIDAE) FROM THE RED SEA, WITH NOTES ON THE RED SEA BATOID FAUNA. *Proc. Calif. Acad. Sci.* 44(14):335-342. 1987. FR 33(2)
[Res. Assoc., Dep. Ichthyol., Acad. Sci., Golden Gate Park, San Francisco, CA 94118]

88-001885 Eakin, Richard R. A NEW SPECIES OF *POGONOPHRYNE* (PISCES, ARTEDIDRACONIDAE) FROM QUEEN MAUD LAND, ANTARCTICA. *J.L.B. Smith Inst. Ichthyol.* No. 45. 4p. 1988. FR 33(2)
[Dep. Nat. Sci. & Math., Westbrook Coll., Portland, ME 04103] *P. platypogon.*

88-001886 Follett, W. I. and David C. Powell. *ERNOGRAMMUS WALKERI*, A NEW SPECIES OF PRICKLEBACK (PISCES: STICHAEIDAE) FROM SOUTH-CENTRAL CALIFORNIA. *Copeia* 1988(1):135-152. 1988. FR 33(2)
[Dep. Ichthyol., Acad. Sci., San Francisco, CA 94118]

88-001887 Isbrucker, I. J. H. and H. Nijssen. NEW RECORDS OF THE MAILED CATFISH *PLANILORICARIA CRYPTODON* FROM THE UPPER AMAZON IN PERU, BRAZIL AND BOLIVIA, WITH A KEY TO THE GENERA OF THE PLANILORICARIINA. *Bijdr. Dierkd.* 56(1):39-46. 1986. In English with French summ. FR 33(2)
[Inst. Taxon. Zool., Univ. Amsterdam, P.O. Box 20125, 1000 HC Amsterdam, Netherlands]

88-001888 Kharin, V. E. NEW AND LESSER KNOWN SPECIES OF CARPET SHARK (ORECTOLOBIDAE) FROM VIETNAMESE WATERS WITH A NOTE ON SPECIES COMPOSITION OF THE GENUS *CHILOSCYLLIUM* MULLER ET HENLE, 1837. *J. Ichthyol. (Engl. Transl. Vopr. Ikhtiol.)* 27(4):63-70. 1987. FR 33(2)
[Pac. Fish. & Oceanogr. Res. Inst.-TINRO, Vladivostok, USSR] *Chiloscyllium explotum, C. plagiosum, C. griseum, C. dolganovi, C. punctatum,* and *C. colax.*

88-001889 Kim, Ik-Soo; Yong-Joo Lee and Yong-Uk Kim. [A TAXONOMIC REVISION OF THE SUBFAMILY GOBIIDAE (PISCES, GOBIIDAE) FROM KOREA.] *Bull. Korean Fish. Soc.* 20(6):529-542. 1987. In Korean with English summ. FR 33(2)
[Dep. Biol., Chonbuk Natl. Univ. Chonju, 520 South Korea]

88-001890 Kohno, Hiroshi. AN INTRODUCTION TO LAPU-LAPU (*EPINEPHELUS*) OF THE PHILIPPINES/PART 3. *Asian Aquacult. (SEAFDEC)* 9(2):5-8. 1987. FR 33(2)

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

88-001891 Kohno, Hiroshi. AN INTRODUCTION TO LAPU-LAPU (*EPINEPHELUS*) OF THE PHILIPPINES. *Asian Aquacult. (SEAFDEC)* 9(3):5-8. 1987. FR 33(2)
Epinephelus fasciatus, E. sexfasciatus, E. amblycephalus, E. undulosus, E. cometae, E. morrhua, E. poecilonotus, and *E. heniochus.*

88-001892 Kullander, Sven O. *TELEOCICHLA,* A NEW GENUS OF SOUTH AMERICAN RHEOPHILIC CICHLID FISHES WITH SIX NEW SPECIES (TELEOSTEI: CICHLIDAE). *Copeia* 1988(1):196-230. 1988. FR 33(2)
[Dep. Vertebr. Zool., Res. Div., Swedish Mus. Nat. Hist., S-104 05 Stockholm, Sweden] *T. centrarchus, T. gephryogramma, T. monogramma, T. prionogenys, T. proselytus,* and *T. cinderella.*

88-001893 Mayden, Richard L. SYSTEMATICS OF THE *NOTROPIS ZONATUS* SPECIES GROUP, WITH DESCRIPTION OF A NEW SPECIES FROM THE INTERIOR HIGHLANDS OF NORTH AMERICA. *Copeia* 1988(1):153-173. 1988. FR 33(2)
[Dep. Biol., P.O. Box 1927, Univ. Ala., Tuscaloosa 35487] *Notropis cardinalis, N. pilsbryi,* and *N. zonatus.*

88-001894 Meisler, Martin Robert. LIMITS AND RELATIONSHIPS OF SERRANINE SEABASSES, WITH REVISIONS OF *SERRANUS* AND *MENTIPERCA* (PISCES: SERRANIDAE). *Ph.D. dissertation, Univ. South. Calif.* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(9):2575-2576. 1988. FR 33(2)

88-001895 Munroe, Thomas Allan. A SYSTEMATIC REVISION OF ATLANTIC TONGUEFISHES (*SYMPHURUS: CYNOGLOSSIDAE: PLEURONECTIFORMES*) WITH A PRELIMINARY HYPOTHESIS OF SPECIES GROUP RELATIONSHIPS. *Ph.D. dissertation, Coll. William & Mary* 637p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2183. 1988. FR 33(2)

88-001896 Ploeg, A. OCCURRENCE AND VARIABILITY OF *CRENICICHLA SAXATILIS* (LINNAEUS, 1758) IN SURINAM, AND RESTRICTION OF ITS TYPE-LOCALITY (PISCES, PERCIFORMES, CICHLIDAE). *Bijdr, Dierkd.* 56(1):47-59. 1986. In English with French summ. FR 33(2)
[Inst. Taxon. Zool., Univ. Amsterdam, P.O. Box 20125, 1000 HC Amsterdam, Netherlands]

88-001897 Reay, P. J. and V. Cornell. IDENTIFICATION OF GREY MULLET (TELEOSTEI: MUGILIDAE) JUVENILES FROM BRITISH WATERS. *J. Fish Biol.* 32(1):95-99. 1988. FR 33(2)
[Dep. Biol. Sci., Plymouth Polytech., Plymouth PL4 8AA, England]

88-001898 Schaefer, Scott A. A NEW SPECIES OF THE LORICARIID GENUS *PAROTOCINCLUS* FROM SOUTHERN VENEZUELA (PISCES: SILUROIDEI). *Copeia* 1988(1):182-188. 1988. FR 33(2)
[Sect. Fishes, Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560] *P. polyochrus.*

88-001899 Seret, Bernard. *HALAELURUS CLEVAI,* SP.N., A NEW SPECIES OF CATSHARK (SCYLIORHINIDAE) FROM OFF MADAGASCAR, WITH REMARKS ON THE TAXONOMIC STATUS OF THE GENERA *HALAELURUS* GILL AND *GALEUS RAFINESQUE. J. L. B. Smith Inst. Ichthyol. Spec. Publ.* No. 44. 27p. 1987. FR 33(2)
[Mus. Natl. Hist. Nat., Lab. Ichthyol., Antenne ORSTOM, 43 rue Cuvier, 75231 Paris Cedex 05, France]

88-001900 Van Tassell, J. L.; P. J. Miller and A. Brito. A REVISION OF *VANNEAUGOBIUS* (TELEOSTEI: GOBIIDAE), WITH DESCRIPTION OF A NEW SPECIES. *J. Nat. Hist.* 22(2):545-567. 1988. FR 33(2)
[Dep. Ichthyol., Am. Mus. Nat. Hist., New York, NY 10024] *V. dollfusi, V. pruvoti, Wheelerigobius, Odondebuenia,* and *V. canariensis.*

IDENTIFICATION, KEYS, CLASSIFICATION (CONTINUED)

88-001901 Vari, Richard P. TWO NEW SPECIES OF CURIMATID FISHES (OSTARIOPHYSI: CHARACIFORMES) FROM RIO GRANDE DO SUL, BRAZIL. *Proc. Biol. Soc. Wash.* 100(3):603-609. 1987. FR 33(2)
[Dep. Vertebr. Zool., Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560] *Curimata spilota* and *C. stigmosa*.

88-001902 Weitzman, Stanley H. and Richard P. Vari. TWO NEW SPECIES AND A NEW GENUS OF MINIATURE CHARACID FISHES (TELEOSTEI: CHARACIFORMES) FROM NORTHERN SOUTH AMERICA. *Proc. Biol. Soc. Wash.* 100(3):640-652. 1987. FR 33(2)
[Dep. Vertebr. Zool., Natl. Mus. Nat. Hist., Smithsonian Inst., Washington, DC 20560] *Priocharax ariel*, and *P. pygmaeus*.

88-001903 Wisner, Robert L. and Charmion B. McMillan. A NEW SPECIES OF HAGFISH, GENUS *EPTATRETUS* (CYCLOSTOMA, MYXINIDAE), FROM THE PACIFIC OCEAN NEAR VALPARAISO, CHILE, WITH NEW DATA ON *E. BISCHOFFII* AND *E. POLYTREMA*. *Trans. San Diego Soc. Nat. Hist.* 21(14):227-244. 1988. FR 33(2)
[Mar. Biol. Res. Div., A-002, Scripps Inst. Oceanogr., La Jolla, CA 92093] *Eptatretus nanii*, *E. polytrema*, and *E. bischofii*.

88-001904 Zhang Yuling. [A TAXONOMIC STUDY ON THE CHINESE ICEFISHES OF THE GENUS *NEOSALANX* (PISCES: SALANGIDAE), WITH DESCRIPTION OF A NEW SPECIES FROM THE LAKE TAIHU.] *Zool. Res.* 8(3):277-286. 1987. In Chinese with English summ. FR 33(2)
Neosalanx pseudotaihuensis in China.

88-001905 Zhou Wei and Chu Xinluo. [SYSTEMATIC STUDY OF THE GENUS *CYPRINUS* (PISCES: CYPRINIDAE) IN YUNNAN, CHINA.] *Zool. Res* 7(3):297-310. 1986. In Chinese with English summ. FR 33(2)
[Kunming Inst. Zool., Acad. Sin., Kunming, China]

PARASITES AND DISEASES-GENERAL

88-001906 Ali, N. M.; A. R. Al-Jafery and K. N. Abdul-Ameer. PARASITIC FAUNA OF FRESHWATER FISHES IN DIYALA RIVER, IRAQ. *J. Biol. Sci. Res.* 18(1):163-181. 1987. In English with Arabic summ. From Protozool. Abstr. 11(11/12):3101. 1987. FR 33(2)
[Dep. Hydrobiol., Biol. Res. Cent., Sci. Res. Council, Rashidiyah, P.O. Box 34038, Baghdad, Iraq]

88-001907 Eiras, J. C.; A. Saraiva and Cristina Cruz. A NOTE ON THE PORTUGUESE SITUATION CONCERNING SOME NOTIFIABLE FISH DISEASES. *Aquaculture* 67(3/4):279-281. 1987. FR 33(2)
[Inst. Zool., Fac. Cienc., Univ. Porto, 4000 Porto, Portugal]

88-001908 Ghittino, P. [SHORT COMMENTS ON THE HEALTH STATUS OF ITALIAN FISHFARMS.] *Riv. Ital. Piscic. Ittiop.* 22(3):118-120. 1987. In Italian with English summ. FR 33(2)
[Cent. Studio Malattie Pisci, Fish Dis. Lab., Inst. Zooprofilattico Sper., Via Bologna 148, 10154 Torino, Italy]

88-001909 Leong, Tak-Seng and See-Yong Wong. A COMPARATIVE STUDY OF THE PARASITE FAUNA OF WILD AND CULTURED GROUPER (*EPINEPHELUS MALABARICUS* BLOCH ET SCHNEIDER) IN MALAYSIA. *Aquaculture* 68(3):203-207. 1988. FR 33(2)
[School Biol. Sci., Univ. Sains Malaysia, 11800 Minden, Penang, Malaysia]

PARASITES AND DISEASES-GENERAL (CONTINUED)

88-001910 Mellergaard, S. and I. Dalsgaard. DISEASE PROBLEMS IN DANISH EEL FARMS. *Aquaculture* 67(1-2):139-146. 1987. FR 33(2)
[Danish Inst. Fish. & Mar. Res., Fish Dis. Lab., Bulowsvej 13, DK-1870 Frederiksberg C, Denmark]

88-001911 Obiekezie, A. I.; H. Moller and K. Anders. DISEASES OF THE AFRICAN ESTUARINE CATFISH *CHRYSICHTHYS NIGRODIGITATUS* (LACEPEDE) FROM THE CROSS RIVER ESTUARY, NIGERIA. *J. Fish Biol.* 32(2):207-221. 1988. FR 33(2)
[Moller: Inst. Meerskunde Univ., Dusternbrooker Weg 20, D-2300 Kiel, West Germany]

88-001912 Okaeme, A. N.; A. I. Obiekezie; J. Lehman; E. E. Antai and C. T. Madu. PARASITES AND DISEASES OF CULTURED FISH OF LAKE KAINJI AREA, NIGERIA. *J. Fish Biol.* 32(3):479-481. 1988. FR 33(2)
[Kainji Lake Res. Inst., PMB 6006, New Bussa, Nigeria] *Sarotherodon galilaeus, Oreochromis niloticus, Clarius Lazera,* and *Heterobranchus bidorsalis.*

88-001913 Sano, T. and H. Fukuda. PRINCIPAL MICROBIAL DISEASES OF MARICULTURE IN JAPAN. *Aquaculture* 67(1-2):59-69. 1987. FR 33(2)
[Lab. Fish Pathol., Dep. Agric., Tokyo Univ. Fish., 4-5-7 Konan, Minato-ku, Tokyo 108, Japan]

88-001914 Testaverde, Salvatore Anthony. PARASITES OF THE YELLOWTAIL FLOUNDER (*LIMANDA FERRUGINEA* STORER, 1839) FROM THE WESTERN NORTH ATLANTIC. *Ph.D. dissertation, Univ. N.H.* 217p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(7):1912. 1988. FR 33(2)

BACTERIAL DISEASES

88-001915 Adams, Alexandra; W. Leschen; Anne Wilson and M. T. Horne. A BATH CHALLENGE MODEL FOR FURUNCULOSIS IN RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, AND ATLANTIC SALMON, *SALMO SALAR* L. *J. Fish Dis.* 10(6):495-504. 1987. FR 33(2)
[Inst. Aquacult., Univ. Stirling, Stirling FK9 4LA, Scotland]

88-001916 Blazer, Vicki S.; B. Austin and D. A. Austin. BACTERIAL FISH PATHOGENS. *Environ. Biol. Fishes* 21(1):77-79. 1988. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, School For. Resour., Univ. Ga., Athens 30602]

88-001917 Bullock, G. L. and H. M. Stuckey. STUDIES ON VERTICAL TRANSMISSION OF *AEROMONAS SALMONICIDA. Prog. Fish-Cult.* 49(4):302-303. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Health Res. Lab., Box 700, Kearneysville, WV 25430] *Salmo gairdneri* and *Salvelinus fontinalis.*

88-001918 Egidius, Emmy. VIBRIOSIS: PATHOGENICITY AND PATHOLOGY. A REVIEW. *Aquaculture* 67(1-2):15-28. 1987. FR 33(2)
[Inst. Mar. Res., P.O. Box 1870, N-5024 Bergen, Norway]

88-001919 Fukui, Haruo; Yoshizo Fujihara and Terumasa Kano. *IN VITRO* AND *IN VIVO* ANTIBACTERIAL ACTIVITIES OF FLORFENICOL, A NEW FLUORINATED ANALOG OF THIAMPHENICOL, AGAINST FISH PATHOGENS. *Fish Pathol.* 22(4):201-207. 1987. In English. FR 33(2)
[Takeda Chem. Ind., Ltd., 17-85 Jusohonmachi-2-Chome, Yodagawa-ku, Osaka 532, Japan]

BACTERIAL DISEASES (CONTINUED)

88-001920 Huh, Gang-Joon and Hisatsugu Wakabayashi. [DETECTION OF *FLAVOBACTERIUM* SP., A PATHOGEN OF BACTERIAL GILL DISEASE, USING INDIRECT FLUORESCENT ANTIBODY TECHNIQUE.] *Fish Pathol.* 22(4):215-220. 1987. In Japanese with English summ. FR 33(2)
[Dep. Fish., Fac. Agric,, Univ. Tokyo, Yayoi 1-1-1, Bunkyo-ku, Tokyo 113, Japan]

88-001921 Jansson, E.; B. Sundqvist; E. Rivera; A. Thuvander and O. Ljungberg. A SOLID PHASE IMMUNOASSAY FOR THE RAPID DETECTION OF *VIBRIO ANGUILLARUM* IN INFECTED RAINBOW TROUT. *Aquaculture* 67(1-2):206. 1987. FR 33(2)
[Natl. Vet. Inst., Box 7073, S-750 07 Uppsala, Sweden] *Salmo gairdneri*.

88-001922 Kodama, H.; Y. Nakanishi; F. Yamamoto; T. Mikami; H. Izawa; T. Imagawa; Y. Hashimoto and N. Kudo. *SALMONELLA ARIZONAE* ISOLATED FROM A PIRARUCU, *ARAPAIMA GIGAS* CUVIER, WITH SEPTICAEMIA. *J. Fish Dis.* 10(6):509-512. 1987. FR 33(2)
[Dep. Epizootiol., Fac. Vet. Med., Hokkaido Univ., N18 W9, Sapporo 060, Japan]

88-001923 Krovacek, Karel; Ahmed Faris and Ingmar Mansson. CYTOTOXIC AND SKIN PERMEABILITY FACTORS PRODUCED BY *VIBRIO ANGUILLARUM*. *Aquaculture* 67(1-2): 1987. FR 33(2)
[Dep. Vet. Microbiol., Fac. Vet. Med., Biomedicum, Box 583, S-751 23 Uppsala, Sweden] *Salmo gairdneri*.

88-001924 Kusuda, Riichi; Chan-fu Chen and Kenji Kawai. THE IMMUNOGLOBULIN OF COLORED CARP, *CYPRINUS CARPIO*, AGAINST *AEROMONAS HYDROPHILA*. *Fish Pathol.* 22(4):179-183. 1987. In English. FR 33(2)
[Fish Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

88-001925 Laurencin, F. Baudin and E. Germon. EXPERIMENTAL INFECTION OF RAINBOW TROUT, *SALMO GAIRDNERI* R., BY DIPPING IN SUSPENSIONS OF *VIBRIO ANGUILLARUM*: WAYS OF BACTERIAL PENETRATION; INFLUENCE OF TEMPERATURE AND SALINITY. *Aquaculture* 67(1-2):203-205. 1987. FR 33(2)
[Lab. Natl. Pathol. Anim. Aquat., IFREMER, B.P. 337, 29273 Brest, Cedex, France]

88-001926 Lehmann, J.; F.-J. Sturenberg and D. Mock. THE CHANGES OF THE HAEMOGRAM OF THE RAINBOW TROUT (*SALMO GAIRDNERI* RICHARDSON) TO AN ARTIFICIAL AND A NATURAL INFECTION WITH *YERSINIA RUCKERI*. *J. Appl. Ichthyol.* 3(4):174-183. 1987. In English with French and German summ. FR 33(2)
[Landesanstalt Fish. NRW, D-5942 Kirchhunde 1-Albaum, West Germany]

88-001927 Llobrera, Alcestis T. and Rogelio Q. Gacutan. *AEROMONAS HYDROPHILA* ASSOCIATED WITH ULCERATIVE DISEASE EPIZOOTIC IN LAGUNA DE BAY, PHILIPPINES. *Aquaculture* 67(3/4):273-278. 1987. FR 33(2)
[Aquacult. Dep., Southeast Asian Fish. Dev. Cent., Tigbauan, Iloilo, Philippines] *Ophiocephalus striatus*, *Clarius batrachus*, *Carassius carassius*, and *Glossogobius giurus*.

88-001928 MacKenzie, K. PRESUMPTIVE MYCOBACTERIOSIS IN NORTH-EAST ATLANTIC MACKEREL, *SCOMBER SCOMBRUS* L. *J. Fish Biol.* 32(2):263-275. 1988. FR 33(2)
[Dep. Agric. & Fish. Mar. Lab., Victoria Rd., Aberdeen AB9 8DB, Scotland]

88-001929 Miyazaki, T. A HISTOLOGICAL STUDY OF THE RESPONSE TO CHALLENGE WITH VIBRIOSIS IN AYU, *PLECOGLOSSUS ALTIVELIS* TEMMINCK AND SCHLEGEL, VACCINATED BY IMMERSION AND INJECTION WITH *VIBRIO ANGUILLARUM* BACTERIN.

BACTERIAL DISEASES (CONTINUED)

88-001929 CONTINUED *J. Fish Dis.* 10(6):445-452. 1987. FR 33(2)
[Dep. Fish., Fac. Fish., Mie Univ., 2-80 Edobashi, Tsu, Mie 514, Japan]

88-001930 Nakai, Toshihiro; Tsuyoshi Kanno; Erlinda R. Cruz and Kiyokuni Muroga. THE EFFECTS OF IRON COMPOUNDS ON THE VIRULENCE OF *VIBRIO ANGUILLARUM* IN JAPANESE EELS AND AYU. *Fish Pathol.* 22(4):185-189. 1987. In English. FR 33(2)
[Fac. Appl. Biol. Sci., Hiroshima Univ., Fukuyama 720, Japan]

88-001931 Noga, Edward J.; Jay F. Levine; Kimberly Townsend; Robert A. Bullis; Charles P. Carlson and Wayne T. Corbett. KIDNEY BIOPSY: A NONLETHAL METHOD FOR DIAGNOSING *YERSINIA RUCKERI* INFECTION (ENTERIC REDMOUTH DISEASE) IN RAINBOW TROUT (*SALMO GAIRDNERI*). *Am. J. Vet. Res.* 49(3):363-365. 1988. FR 33(2)
[Dep. Companion Anim. & Special Species Med., School Vet. Med., N.C. State Univ., Raleigh 27606]

88-001932 Palacios-Fontcuberta, M. A. and P. Ghittino. [FIRST RECORD OF EDWARDSIELLOSIS IN ITALIAN EEL FARM.] *Riv. Ital. Piscic. Ittiop.* 22(3):105-106, 109, 113-114. 1987. In Italian with Spanish summ. FR 33(2) FR 33(2)
[Univ. Complutense Madrid, Progama Acuicult. 28040, Madrid, Spain] *Angullla anguilla.*

88-001933 Ricque, D. and F. Baudin-Laurencin. ENZYME-LINKED IMMUNOSORBENT ASSAY (ELISA) OR AGGLUTINATION TEST FOR MONITORING POTENCY OF TROUT VIBRIOSIS VACCINES. *Aquaculture* 67(1-2):207-209. 1987. FR 33(2)
[Lab. Natl. Pathol. Anim. Aquat., IFREMER, B.P. 337, 29273 Brest, France] *Salmo gairdneri.*

88-001934 Salati, Fulvio; Giuseppe Ceschia; Giorgio Giorgetti and Riichi Kusuda. *VIBRIO ANGUILLARUM* ISOLATED FROM DISEASED CULTURED FISH IN ITALY. *Fish Pathol.* 22(4):195-200. 1987. In English. FR 33(2)
[Fish. Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

88-001935 Santos, Ysabel; Alicia E. Toranzo; Carlos P. Dopazo; Teresa P. Nieto and Juan L. Barja. RELATIONSHIPS AMONG VIRULENCE FOR FISH, ENTEROTOXIGENICITY, AND PHENOTYPIC CHARACTERISTICS OF MOTILE *AEROMONAS*. *Aquaculture* 67(1-2):29-39. 1987. FR 33(2)
[Dep. Microbiol. & Parasitol., Univ. Santiago Compostela, Santiago 15703, Spain]

88-001936 Speyerer, P. D. and J. A. Boyle. THE PLASMID PROFILE OF *EDWARDSIELLA ICTALURI*. *J. Fish Dis.* 10(6):461-469. 1987. FR 33(2)
[Boyle: P.O. Drawer BB, Miss. State Univ., Mississippi State] *Ictalurus punctatus.*

88-001937 Tajima, Kenichi; Yoshio Ezura and Takahisa Kimura. [THE POSSIBILITY OF USE OF A THERMOLABILE ANTIGEN IN DETECTION OF *VIBRIO ANGUILLARUM*.] *Fish Pathol.* 22(4): 237-242. 1987. In Japanese with English summ. FR 33(2)
[Fac. Fish., Hokkaido Univ., Hakodate, Hokkaido 041, Japan]

88-001938 Takahashi, Yukinori and Toshio Endo. EVALUATION OF THE EFFICACY OF AN ULTRAFINE PREPARATION OF OXOLINIC ACID IN THE TREATMENT OF PSEUDOTUBERCULOSIS IN YELLOWTAIL. *Nippon Suisan Gakkaishi*

BACTERIAL DISEASES (CONTINUED)

88-001938 CONTINUED 53(12):2157-2162. 1987. FR 33(2)
[Dep. Aquacult. & Biol., Shimonoseki Univ. Fish., Shimonoseki, Yamaguchi 759-65, Japan] *Seriola quinqueradiata*.

88-001939 Thorburn, Margaret A. FACTORS INFLUENCING SEASONAL VIBRIOSIS MORTALITY RATES IN SWEDISH PEN-REARED RAINBOW TROUT. *Aquaculture* 67(1-2):79-85. 1987. FR 33(2)
[Natl. Vet. Inst., Box 7073, S-750 07 Uppsala, Sweden] *Salmo gairdneri*.

88-001940 Thuvander, Ann; T. Hongslo; Eva Jansson and Bo Sundquist. DURATION OF PROTECTIVE IMMUNITY AND ANTIBODY TITRES MEASURED BY ELISA AFTER VACCINATION OF RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON, AGAINST VIBRIOSIS. *J. Fish Dis.* 10(6):479-486. 1987. FR 33(2)
[Natl. Vet. Inst., Box 7073, 705 07 Uppsala, Sweden]

88-001941 Toranzo, Alicia E.; Ysabel Santos; Manuel L. Lemos; Aurora Ledo and Jorge Bolinches. HOMOLOGY OF *VIBRIO ANGUILLARUM* STRAINS CAUSING EPIZOOTICS IN TURBOT, SALMON AND TROUT REARED ON THE ATLANTIC COAST OF SPAIN. *Aquaculture* 67(1-2):41-52. 1987. FR 33(2)
[Dep. Microbiol. & Parasitol., Univ. Santiago Campostela, Santiago 15703, Spain] *Scophthalmus maximus*, *Oncorhynchus kisutch*, and *Salmo gairdneri*.

88-001942 Turaga, Prasad S. D.; Gregory D. Wiens and Stephen L. Kaattari. ANALYSIS OF *RENIBACTERIUM SALMONINARUM* ANTIGEN PRODUCTION *IN SITU*. *Fish Pathol.* 22(4):209-214. 1987. In English. FR 33(2)
[Kaattari: Dep. Microbiol., Oreg. State Univ., Corvallis 97331]

FUNGAL DISEASES

88-001943 Bruno, D. W. and D. J. Stamps. SAPROLEGNIASIS OF ATLANTIC SALMON, *SALMO SALAR* L., FRY. *J. Fish Dis.* 10(6):513-517. 1987. FR 33(2)
[Dep. Agric. & Fish., Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen AB9 8DB, Scotland]

88-001944 Duran, A.; L. B. Rodriguez Aparacio; A. Reglero and J. Perez Diaz. CHANGES IN SERUM ENZYMES OF *SAPROLEGNIA*-INFECTED BROWN TROUT, *SALMO TRUTTA* L. *J. Fish Dis.* 10(6):505-507. 1987. FR 33(2)
[Perez Diaz: Dep. Bioquim., Fac. Vet., Univ. Leon, 24071 Leon, Spain]

88-001945 Laidley, C. W.; P. T. K. Woo and J. F. Leatherland. THE STRESS-RESPONSE OF RAINBOW TROUT TO EXPERIMENTAL INFECTION WITH THE BLOOD PARASITE *CRYPTOBIA SALMOSITICA* KATZ, 1951. *J. Fish Biol.* 32(2):253-261. 1988. FR 33(2)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

PROTOZOAN DISEASES

88-001946 Clifton-Hadley, R. S.; R. H. Richards and D. Bucke. FURTHER CONSIDERATION OF THE HAEMATOLOGY OF PROLIFERATIVE KIDNEY DISEASE (PKD) IN RAINBOW TROUT, *SALMO GAIRDNERI* RICHARDSON. *J. Fish Dis.* 10(6):435-444. 1987. FR 33(2)
[MRCVS, c/o MAFF, Fish Dis. Lab., Weymouth, Dorset DT4 8UB, England]

PROTOZOAN DISEASES (CONTINUED)

88-001947 Foott, J. S.; R. Rosemark and R. P. Hedrick. SEASONAL OCCURRENCE OF THE INFECTIOUS STAGE OF PROLIFERATIVE KIDNEY DISEASE (PKD) IN CALIFORNIA. *Bull. Eur. Assoc. Fish. Pathol.* 6(4):105-107. 1986. From Protozool. Abstr. 12(1):70. FR 33(2)
[School Vet. Med., Univ. Calif., Davis 95616]

88-001948 Hedrick, R. P.; M. L. Kent; R. J. Toth and J. K. Morrison. FISH INFECTED WITH *SPHAEROSPORA* SPP. THELOHAN (MYXOSPOREA) FROM WATERS ENZOOTIC FOR PROLIFERATIVE KIDNEY DISEASE OF SALMONIDS. *J. Protozool.* 35(1):13-18. 1988. FR 33(2)
[Dep. Med., School Vet. Med., Univ. Calif., Davis 95616] *Salmo gairdneri, Cila bicolor,* and *Gasterosteus aculeatus.*

88-001949 Horsch, C. M. A CASE HISTORY OF WHIRLING DISEASE IN A DRAINAGE SYSTEM: BATTLE CREEK DRAINAGE OF THE UPPER SACRAMENTO RIVER BASIN, CALIFORNIA, USA. *J. Fish Dis.* 10(6):453-460. 1987. FR 33(2)
[Coleman Fish Health Cent., Rt. 1, Box 2105, Anderson, CA 96007]

88-001950 Landsberg, J. H. MYXOSPOREAN PARASITES OF THE CATFISH, *CLARIAS LAZERA* (VALENCIENNES). *Syst. Parasitol.* 9(1):73-81. 1987. From Protozool. Abstr. 11(11/12):3121. 1987. FR 33(2)
[Lab. Res. Fish Dis., Nir-David 19150, Israel]

88-001951 Langdon, J. S. SPINAL CURVATURES AND AN ENCEPHALOTROPIC MYXOSPOREAN, *TRIANGULA PERCAE* SP. NOV. (MYXOZOA: ORTHOLINEIDAE), ENZOOTIC IN REDFIN PERCH, *PERCA FLUVIATILIS* L., IN AUSTRALIA. *J. Fish Dis.* 10(6):425-434. 1987. FR 33(2)
[Fish Health Ref. Lab., Regional Vet. Lab., P.O. Box 388, Benalla, Vic. 3672, Australia]

88-001952 Mitenev, V. K. [MYXOSPORIDIA OF FISH ON THE KOLA PENINSULA.] *Tr. Zool. Inst.* No. 155. p. 134-154. 1986. In Russian with English summ. From: Protozool. Abstr. 11(11/12):3100. 1987. FR 33(2)
[Polyarnyi NI Inst., Morskogo Rybnogo Khozyaistva & Okeonogr., Murmansk, USSR]

88-001953 Wiles, Michael and David K. Cone. A SPECIES OF *TRICHOPHRYA* (SUCTORIA: DENDROSOMIDAE) FROM *CATOSTOMUS COMMERSONI* LACEPEDE IN NOVA SCOTIA. *Proc. N.S. Inst. Sci.* 37(1):9-12. 1987. In English with French summ. FR 33(2)
[Dep. Biol., Saint Mary's Univ., Halifax, NS, Canada B3H 3C3]

VIRAL DISEASES

88-001954 Castric, J.; F. Baudin-Laurencin; M. F. Coustans and M. Auffret. ISOLATION OF INFECTIOUS PANCREATIC NECROSIS VIRUS, AB SEROTYPE, FROM AN EPIZOOTIC IN FARMED TURBOT *SCOPHTHALMUS MAXIMUS*. *Aquaculture* 67(1-2):117-126. 1987. FR 33(2)
[Lab. Natl. Pathol. Anim. Aquat., Minist. Agric., B.P. 337, 29273 Brest, France]

88-001955 Dorson, M.; P. de Kinkelin; Corinne Torchy and Daniele Monge. [SUSCEPTIBILITY OF PIKE (*ESOX LUCIUS*) TO DIFFERENT SALMONID VIRUSES (IPN, VHS, IHN) AND TO THE PERCH RHABDOVIRUS.] *Bull. Fr. Peche Piscic.* 307(4):91-101. 1987. In French with English summ. FR 33(2)
[Lab. Ichthyopathol., I.N.R.A., 78850 Thiverral-Grignon, France]

VIRAL DISEASES (CONTINUED)

88-001956 Hattenberger-Baudouy, Anne-Marie; Michele Danton and Ghislaine Merle. [EXPERIMENTAL INFECTION OF CARP (*CYPRINUS CARPIO* L.) FRY WITH SPRING VIRAEMIA OF CARP (S.V.C.) VIRUS AT HIGH WATER TEMPERATURE.] *Bull. Fr. Peche Piscic.* 307(4):89-90. 1987. In French with English summ. FR 33(2)
[Minist. Agric., Lab. Cent. Rech. Vet., 22 rue Pierre Curie, 94700 Maisons-Alfort, France]

88-001957 Isshiki, Tadashi and Riichi Kusuda. [SUSCEPTIBILITY OF DIFFERENT MARINE FISH FINGERLINGS TO YELLOWTAIL ASCITES VIRUS (YAV).] *Fish Pathol.* 22(4):191-194. 1987. In Japanese with English summ. FR 33(2)
[Fish Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

88-001958 Menezes, Jaime; Alice Ramos and Teresa Gama Pereira. LYMPHOCYSTIS DISEASE: AN OUTBREAK IN *SPARUS AURATA* FROM RIA FORMOSA, SOUTH COAST OF PORTUGAL. *Aquaculture* 67(1-2):222-225. 1987. FR 33(2)
[Inst. Nac. Invest. Pesc., Ave. Brasilia, 1400 Lisbon, Portugal]

88-001959 Okamoto, Nobuaki; Yoshio Seno; Norihiko Taniguchi and Tokuo Sano. [RELATIONSHIP BETWEEN INOCULATIVE QUANTITY OF INFECTIOUS PANCREATIC NECROSIS VIRUS AND THE MORTALITY OF RAINBOW TROUT FRY.] *Nippon Suisan Gakkaishi* 53(11):1975-1978. 1987. In Japanese with English summ. FR 33(2)
[Lab. Fish Pathol., Tokyo Univ. Fish., Konan 4, Minato, Tokyo 108, Japan] *Salmo gairdneri.*

88-001960 Pasco, L.; Corinne Torchy and P. de Kinkelin. [EXPERIMENTAL INFECTION OF SHEATFISH FRY (*SILURUS GLANIS* L.) BY SPRING VIRAEMIA OF CARP VIRUS (SVCV).] *Bull. Fr. Peche Piscic.* 307(4):84-88. 1987. In French with English summ. FR 33(2)
[Lab. Zool., Univ. Louis Pasteur, 12 rue de l'Univ., 67000 Strasbourg, France]

88-001961 Yulin, Jiang and Li Zhengqui. ISOLATION OF IPN VIRUS FROM IMPORTED RAINBOW TROUT (*SALMO GAIRDNERI*) IN THE P.R. CHINA. *J. Appl. Ichthyol.* 3(4):191-192. 1987. In English with French and German summ. FR 33(2)
[Inst. Hydrobiol., Acad. Sinica, Wuhan, Hubei, China]

OTHER DISEASES AND PARASITES

88-001962 Bastide-Guillaume, C.; L. Douellou; B. Romestand and J.-P. Trilles. [COMPARATIVE STUDY OF TWO *LERNAEOCERA* PARASITES OF *MERLUCCIUS MERLUCCIUS* AND *TRISOPTERUS MINUTUS CAPELANUS* FROM THE GULF OF LIONS.] *Rev. Trav. Inst. Peches Marit.* 49(3/4):143-154. 1987. In French with English summ. FR 33(2)
[Lab. Ichthyol., U.S.T.L., 34060 Montpellier Cedex, France]

88-001963 Boeger, Walter A. and V. E. Thatcher. *RHINERGASILUS PIRANHUS* GEN. ET SP. N. (COPEPODA, POECILOSTOMATOIDA, ERGASILIDAE) FROM THE NASAL CAVITIES OF PIRANHA CAJU, *SERRASALMUS NATTERERI*, IN THE CENTRAL AMAZON. *Proc. Helminthol. Soc. Wash.* 55(1):87-90. 1988. FR 33(2)
[Dep. Biol. Sci., Idaho State Univ., Pocatello 83209]

88-001964 Brill, Richard W.; Robert Bourke; James A. Brock and Murray D. Dailey. PREVALENCE AND EFFECTS OF INFECTION OF THE DORSAL AORTA IN YELLOWFIN TUNA, *THUNNUS ALBACARES*, BY THE LARVAL CESTODE, *DASYRHYNCHUS TALISMANI*. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):767-776. 1987. FR 33(2)
[Southwest Fish. Cent. Lab., NMFS, NOAA, Honolulu, HI 96822-2396]

OTHER DISEASES AND PARASITES (CONTINUED)

88-001965 Carvalho-Varela, M. and V. Cunha-Ferreira. HELMINTH PARASITES OF THE COMMON SOLE, *SOLEA SOLEA*, AND THE SENEGALESE SOLE, *SOLEA SENEGALENSIS*, ON THE PORTUGUESE CONTINENTAL COAST. *Aquaculture* 67(1-2):135-138. 1987. FR 33(2)
[Cent. Parasitol., Univ. Tecnica/INIC, Escola Superior Med. Vet., Rua Gomes Freire, 1199 Lisbon, Portugal]

88-001966 Chauhan, R. S. and S. K. Malhotra. POPULATION BIOLOGY OF THE PSEUDOPHYLLIDEAN CESTODE *BOTHRIOCEPHALUS TELEOSTEI* (MALHOTRA, 1984) IN THE INDIAN HILL-STREAM TELEOSTS. I. INFLUENCE OF SEASON AND TEMPERATURE. *Bol. Chil. Parasitol.* 41(3-4):51-61. 1986. In English with Spanish summ. FR 33(2)
[Parasitol. Lab., Dep. Zool., Univ. Allahabad, Allahabad 211 002, U.P., India] *Barilius bendelisis* and *B. bola*.

88-001967 Cribb, T. H. TWO NEW DIGENETIC TREMATODES FROM AUSTRALIAN FRESHWATER FISHES WITH NOTES ON PREVIOUSLY DESCRIBED SPECIES. *J. Nat. Hist.* 22(1):27-43. 1988. FR 33(2)
[Dep. Parasitol., Univ. Queensland, St. Lucia, Qld. 4067, Australia]

88-001968 Dempster, Robert P.; Patricia Morales and Francis X. Glennon. USE OF SODIUM CHLORITE TO COMBAT ANCHORWORM INFESTATIONS OF FISH. *Prog. Fish-Cult.* 50(1):51-55. 1988. FR 33(2)
[Morales: Steinhart Aquarium, Calif. Acad. Sci., Golden Gate Park, San Francisco 94118]

88-001969 DeOliveira, Evaldete F.; J. F. R. Amato and Marcelo Knoff. A NEW SPECIES OF *HYSTEROLECITHA* (TREMATODA: HEMIURIDAE) FROM THE MULLET, *MUGIL LIZA*, IN THE STATE OF RIO DE JANEIRO, BRASIL. *Proc. Helminthol. Soc. Wash.* 55(1):58-61. 1988. FR 33(2)
[Empresa Pesquisa Agropecuaria Estado Mato Grosso S.A., U.E.P., Rua Pintado, s/no., C.P. 941, Varzea Grande, Mato Grosso, Brazil]

88-001970 Diamant, A. and A. H. McVicar. THE EFFECT OF INTERNAL AND EXTERNAL X-CELL LESIONS ON COMMON DAB, *LIMANDA LIMANDA* L. *Aquaculture* 67(1-2):127-133. 1987. FR 33(2)
[Natl. Cent. Maricult., Isr. Oceanogr. & Limnol. Res. Ltd., P.O. Box 1212 Eilat 88112, Israel]

88-001971 Faliex, E. and S. Biagianti. METACERCARIAL INFECTION OF MARINE FISH BY *LABRATREMA MINIMUS* (DIGENEA, BUCEPHALIDAE): HISTO-CYTOLOGICAL ANALYSIS OF HOST-PARASITE RELATIONSHIP. *Aquaculture* 67(1-2):229-232. 1987. FR 33(2)
[Mar. Biol. Lab., Univ. Perpignan, Ave. Villeneuve, F-66025 Perpignan, France] *Liza aurata, Liza ramada, Atherino boyeri, Sparus aurata*, and *Chelon labrosus*.

88-001972 Franklin, C. E. and W. Davison. X-CELLS IN THE GILLS OF AN ANTARCTIC TELEOST, *PAGOTHENIA BORCHGREVINKI*. *J. Fish Biol.* 32(3):341-353. 1988. FR 33(2)
[Dep. Zool., Univ. Canterbury, Christchurch 1, New Zealand]

88-001973 Gartner, J. V., Jr. and D. E. Zwerner. AN ICHTHYOPHONUS-TYPE FUNGUS IN THE DEEP-SEA PELAGIC FISH *SCOPELOGADUS BEANII* (GUNTHER) (PISCES: MELAMPHAIDAE): PATHOLOGY, GEOGRAPHIC DISTRIBUTION AND ECOLOGICAL IMPLICATIONS. *J. Fish Biol.* 32(3):459-470. 1988. FR 33(2)
[Dep. Mar. Sci., Univ. South Fla., 149 7th Ave. S.E., St. Petersburg, 33701

OTHER DISEASES AND PARASITES (CONTINUED)

88-001974 Gomelyuk, V. E. and A. I. Markevich. [HYDROID COLONY ON THE ROCKFISH *SEBASTES TACZANOWSKII*.] *Mar. Biol. Vladivostok* 1987(4):77-78. 1987. In Russian with English summ. FR 33(2)

88-001975 Groman, D. B. and K. Miller HAEMOLYTIC ANAEMIA OF WILD ATLANTIC SALMON: HAEMATOLOGY AND CHEMICAL PATHOLOGY. *Aquaculture* 67(1-2):210-212. 1987. FR 33(2)
[North East River Purification Board, Aberdeen, Scotland]

88-001976 Harrison, Michael Morgan. THE INFLUENCE OF A HEATED EFFLUENT, SEASON, AND FISH SIZE ON THE PREVALENCE AND MEAN INTENSITY OF MONOGENEAN GILL INFESTATION IN BLUEGILLS (*LEPOMIS MACROCHIRUS*) IN LAKE MONONA, DANE COUNTY, WISCONSIN, USA. *Ph.D. dissertation, Univ. Wis. (Madison)* 164p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(9):2574. 1988. FR 33(2)

88-001977 Hockett, Christopher T. EFFECTS OF METACERCARIA ON GROWTH AND THERMAL TOLERANCE OF SPOTFIN SHINERS (*NOTROPIS SPILOPTERUS*), STRIPED SHINERS (*NOTROPIS CHRYSOCEPHALUS*), AND BLUNTNOSE MINNOWS (*PIMEPHALES NOTATUS*). *Ohio J. Sci.* 88(2):44. 1988. Abstract only. FR 33(2)
[Dep. Zool., Miami Univ., 4200 E. University Blvd., Middletown, OH 45042]

88-001978 Lo, Chu-Fang; Chung-Hsiung Wang; Kazuo Ogawa and Hisatsugu Wakabayashi. THE MECHANISM OF THE METACERCARIAL EXCYSTMENT OF *CLINOSTOMUM COMPLANATUM* (RUD. 1814). *Fish Pathol.* 22(4):227-235. 1987. In English. FR 33(2)
[Biol. Dep., Fu-Jen Catholic Univ., Taipei 24205, Taiwan]

88-001979 McGladdery, S. E. and C. E. Johnston. EGG DEVELOPMENT AND CONTROL OF THE GILL PARASITE, *SALMINCOLA SALMONEUS*, ON ATLANTIC SALMON KELTS (*SALMO SALAR*) EXPOSED TO FOUR DIFFERENT REGIMES OF TEMPERATURE AND PHOTOPERIOD. *Aquaculture* 68(3):193-202. 1988. FR 33(2)
[Dep. Fish. & Oceans, Fish. Res. Branch, P.O. Box 5030, Moncton, NB, Canada E1C 9B6]

88-001980 McVicar, A. H. PANCREAS DISEASE OF FARMED ATLANTIC SALMON, *SALMO SALAR*, IN SCOTLAND: EPIDEMIOLOGY AND EARLY PATHOLOGY. *Aquaculture* 67(1-2):71-78. 1987. FR 33(2)
[Dep. Agric. & Fish., Mar. Lab., Victoria Rd., Aberdeen AB9 8DB, Scotland]

88-001981 Nagasawa, Kazuya. PREVALENCE AND ABUNDANCE OF *LEPEOPHTEIRUS SALMONIS* (COPEPODA: CALIGIDAE) ON HIGH-SEAS SALMON AND TROUT IN THE NORTH PACIFIC OCEAN. *Nippon Suisan Gakkaishi* 53(12):2151-2156. 1987. In English. FR 33(2)
[Hokkaido Fish. Exp. Stn., Hakodate, Hokkaido 042, Japan] *Oncorhynchus nerka, O. keta, O. gorbuscha, O. kisutch, O. tshawytscha*, and *Salmo gairdneri*.

88-001982 Neves, Richard J. and James C. Widlak. OCCURRENCE OF GLOCHIDIA IN STREAM DRIFT AND ON FISHES OF THE UPPER NORTH FORK HOLSTON RIVER, VIRGINIA. *Am. Midl. Nat.* 119(1):111-120. 1988. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, Dep. Fish. & Wildl. Sci., VPI&SU, Blacksburg, VA 24061]

88-001983 Oyetayo, A. S. INFECTION OF THE AFRICAN ELEOTRID *BOSTRYCHUS AFRICANUS* (STEINDACHNER 1980) BY THE NEMATODE *RAPHIDASCAROIDES AFRICANUS*. *J. Fish Biol.* 32(3):485-486. 1988. FR 33(2)
[Dep. Zool., Univ. Port Harcourt, P.M.B. 5323, Port Harcourt, Nigeria]

OTHER DISEASES AND PARASITES (CONTINUED)

88-001984 Paperna, Ilan. SYSTEMIC GRANULOMA OF SPARIID FISH IN CULTURE. *Aquaculture* 67(1-2):53-58. 1987. FR 33(2)
[Dep. Anim. Sci., Fac. Agric., Hebrew Univ. Jerusalem, Rehovot 76-100, Israel] *Sparus aurata*.

88-001985 Rohde, K. GILL MONOGENEA OF DEEPWATER AND SURFACE FISH IN SOUTHEASTERN AUSTRALIA. *Hydrobiologia* 160(3):271-283. 1988. FR 33(2)
[Dep. Zool., Univ. New England, Armidale, N.S.W. 2351, Australia]

88-001986 Sakanari, Judith Anne. INCOMPATIBILITY BETWEEN AN INTRODUCED SPECIES OF FISH, STRIPED BASS (*MORONE SAXATILIS*), AND AN INDIGENOUS PARASITE, *LACISTORHYNCHUS TENUIS* (CESTODA). *Ph.D. dissertation, Univ. Calif. (Berkeley)* 111p. 1986. From Diss. Abstr. Int. B Sci. Eng. 48(5):1270. 1987. FR 33(2)

88-001987 Salati, F. [PARASITOLOGY OF *ANGUILLICOLA* SPP. IN JAPAN.] *Riv. Ital. Piscic. Ittiop.* 22(3):115-117. 1987. In Italian. FR 33(2)
[Fish. Dis. Lab., Fac. Agric., Kochi Univ., Nankoku, Kochi 783, Japan]

88-001988 Shostak, Allen William. SOURCES OF VARIABILITY IN LIFE-HISTORY CHARACTERISTICS OF THE ANNUAL PHASE OF *TRIAENOPHORUS CRASSUS* (CESTODA: PSEUDOPHYLLIDAE). *Ph.D. dissertation, Univ. Manitoba (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2235. 1988. FR 33(2)
Esox lucius.

88-001989 Smith, I. R. and B. A. Zajdlik. REGRESSION AND DEVELOPMENT OF EPIDERMAL PAPILLOMAS AFFECTING WHITE SUCKERS, *CATOSTOMUS COMMERSONI* (LACEPEDE), FROM LAKE ONTARIO, CANADA. *J. Fish Dis.* 10(6):487-494. 1987. FR 33(2)
[Dep. Pathol., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-001990 Srivastav, A. K. and B. K. Srivastava. ON A NEW CESTODE *ANTHOBOTHRIUM SASOONENSE* SP. N. (PHYLLOBOTHRIIDAE, CESTODA) FROM THE ELASMOBRANCH FISH, *RHINOBATOS GRANULATUS* (CUVIER) (RHINOBATIDAE, EUSELACHII) FROM SASOON DOCK, BOMBAY (INDIA).] *Helminthologia (Bratisl.)* 25(1):15-20. 1988. FR 33(2)
[Parasitol. Lab., Dep. Zool., Bipin Bihari Post Grad. Coll., Jhansi 284001, India]

88-001991 Szekely, C. and K. Molnar. MEBENDAZOLE IS AN EFFICACIOUS DRUG AGAINST PSEUDODACTYLOGYROSIS IN THE EUROPEAN EEL (*ANGUILLA ANGUILLA*). *J. Appl. Ichthyol.* 3(4):183-186. 1987. In French with English and German summ. FR 33(2)
[Vet. Med. Res., Hungarian Acad. Sci., P.O.B. 18, H-1581 Budapest, Hungary]

88-001992 Urawa, S. [THE PARASITES OF SALMONID FISHES -II. THE BIOLOGY OF ANISAKID NEMATODES AND THE PREVENTION OF THEIR HUMAN INFECTIONS.] *Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 52-70. 1986. In Japanese with English summ. FR 33(2)

88-001993 Williams, Lucy Bunkley and Ernest H. Williams, Jr. THREE NEW SPECIES OF *RENOCILA* (CRUSTACEA: ISOPODA: CYMOTHOIDEA), EXTERNAL PARASITES OF CORAL REEF FISHES FROM THE RYUKYU ISLANDS OF JAPAN. *Proc. Biol. Soc. Wash.* 100(3):417-432. 1987. FR 33(2)
[Dep. Mar. Sci., Univ. Puerto Rico, Mayaguez 00708] *Chromis ovatiformis, Centropyge heraldi,* and *C. vrolicki*.

OTHER DISEASES AND PARASITES (CONTINUED)

88-001994 Wood, B. P. and R. A. Matthews. IN VIVO STUDY OF THE EFFECT OF TEMPERATURE AND LIGHT ON THE MELANISATION OF CYSTS OF *CRYPTOCOTYLE LINGUA* (CREPLIN, 1825) IN THE MULLET, *CHELON LABROSUS* (RISSO, 1826). *Aquaculture* 67(1-2):221. 1987. FR 33(2)
[Dep. Biol. Sci., Plymouth Polytech., Drake Circus, Plymouth PL4 8AA, England]

88-001995 Yoshinaga, Tomoyoshi; Kazuo Ogawa and Hisatsugu Wakabayashi. EXPERIMENTAL LIFE CYCLE OF *HYSTEROTHYLACIUM ADUNCUM* (NEMATODA: ANISAKIDAE) IN FRESH WATER. *Fish Pathol.* 22(4):243-251. 1987. In English. FR 33(2)
[Dep. Fish., Fac. Agric., Univ. Tokyo, Yayoi, Bunkyo-ku, Tokyo 113, Japan]

88-001996 Zharikova, T. I. [ON JOINT OCCURENCE OF MONOGENEANS OF THE GENERA *DACTYLOGYRUS* AND *DIPLOZOON* IN BREAM AND CARP.] *Zool. Zh.* 66(12):1789-1793. 1987. In Russian with English summ. FR 33(2)
[Inst. Biol. Inland Waters, USSR Acad. Sci., Borok, Yaroslavl Dist., USSR] *Cyprinus carpio* and *Abramis brama*.

POLLUTION

88-001997 Adoff, Grethe R. DOES EXPOSURE TO CRUDE OIL AFFECT ECTODERMAL STRUCTURES OF DEVELOPING COD EGGS AND LARVAE? *Sarsia* 72(3-4):391-393. 1987. FR 33(2)
[Zool. Lab., Univ. Bergen, Allegt. 41, N-5007 Bergen, Norway] *Gadus morhua*.

88-001998 Barnung, Trygg N. and Otto Grahl-Nielsen. THE FATTY ACID PROFILE IN COD (*GADUS MORHUA* L.) EGGS AND LARVAE. DEVELOPMENTAL VARIATIONS AND RESPONSES TO OIL POLLUTION. *Sarsia* 72(3-4):415-417. 1987. FR 33(2)
[Zool. Lab., Univ. Bergen, N-5007 Bergen, Norway]

88-001999 Baumann, Paul C. and D. Michael Whittle. THE STATUS OF SELECTED ORGANICS IN THE LAURENTIAN GREAT LAKES: AN OVERVIEW OF DDT, PCBs, DIOXINS, FURANS, AND AROMATIC HYDROCARBONS. *Aquat. Toxicol.* 11(3-4):241-257. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Field Res. Stn., 1813 N. High St., Columbus, OH 43210]

88-002000 Borseth, Jan Fredrik and Leif Jorgensen. THE EFFECTS OF STATFJORD CRUDE OIL ON EGGS OF PLAICE, *PLEURONECTES PLATESSA* L. *Sarsia* 72(3-4):409-410. 1987. FR 33(2)
[Dep. Zool., Univ. Trondheim - AVH, N-7055 Dragvoll, Norway]

88-002001 Briassoulis, Helen. COMPROMISE SOLUTIONS TO THE ACID DEPOSITION CONTROL PROBLEM: A THEORETICAL MODEL AND SOME SIMULATION RESULTS. *Environ. Manage.* 11(2):271-278. 1987. FR 33(2)
[2480 Fairview Ave., Apt. 404, Cincinnati, OH 45219]

88-002002 Carlaw, D. OXYGENATION SAVES FISH FROM FARM EFFLUENT ON ENGLISH RIVER. *Biol. Wastes* 23(2):153-155. 1988. FR 33(2)
[122 Salisbury Rd., Canterbury, Kent CT2 7SE, England]

88-002003 Chagnon, Norman Lee. EFFECTS OF COPPER AND CADMIUM ON ELECTROPHORETICALLY DETECTED ENZYMES IN FISH. *Ph.D. dissertation, Miami Univ.* 74p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(9):2573. 1988. FR 33(2)

POLLUTION (CONTINUED)

88-002004 Dethlefsen, Volkert. STATUS REPORT ON AQUATIC POLLUTION PROBLEMS IN EUROPE. *Aquat. Toxicol.* 11(3-4):259-286. 1988. FR 33(2)
[Inst. Kusten- & Binnenfischerei, Niedersachsenstr. 2190 Cuxhaven, West Germany]

88-002005 Eshenroder, R. L., T. A. Edsall; D. J. Jude; J. R. M. Kelso; J. A. MacLean and J. W. Peck. A PROPOSAL FOR A BIOASSAY PROCEDURE TO ASSESS IMPACT OF HABITAT CONDITIONS ON LAKE TROUT REPRODUCTION IN THE GREAT LAKES. *Great Lakes Fish. Comm. Spec. Publ.* 88-2. 12p. 1988. FR 33(2)
[Great Lakes Fish. Comm., 1451 Green Rd., Ann Arbor, MI 48105] *Salvelinus namaycush.*

88-002006 Evans, Marlene S., editor. TOXIC CONTAMINANTS AND ECOSYSTEM HEALTH: A GREAT LAKES FOCUS. *John Wiley & Sons* 602p. 1988. FR 33(2)
[Great Lakes Res. Div., Univ. Mich., Ann Arbor] Selected chapters indexed in this issue of *Fisheries Review.*

88-002007 Fairchild, James F.; Terence P. Boyle; Everett Robinson-Wilson and John R. Jones. MICROBIAL ACTION IN DETRITAL LEAF PROCESSING AND THE EFFECTS OF CHEMICAL PERTURBATION. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 437-456. 1983. FR 33(2)
[Columbia Natl. Fish. Res. Lab., U.S. Fish & Wildl. Serv., Columbia, MO]

88-002008 Fyhn, Hans Jorgen; Harald Salhus and Trygg N. Barnung. A BIOTEST SYSTEM FOR LONG TERM EFFECT-STUDIES OF OIL ON MARINE FISH EGGS AND LARVAE. DESIGN, COMPONENT DESCRIPTION AND FUNCTIONAL TESTS. *Sarsia* 72(3-4):321-328. 1987. FR 33(2)
[Zool. Lab., Univ. Bergen, N-5027 Bergen, Norway] *Gadus morhua.*

88-002009 Giebel, Wendelin. SHARKS AND PLASTICS. *Underwater Nat.* 17(1):24. 1988. FR 33(2)

88-002010 Goksoyr, Anders and Tor S. Solberg. CYTOCHROMES P-450 IN FISH LARVAE: IMMUNOCHEMICAL DETECTION OF RESPONSES TO OIL POLLUTION. *Sarsia* 72(3-4):405-407. 1987. FR 33(2)
[Dep. Biochem, Univ. Bergen, N-5009 Bergen, Norway] *Gadus morhua.*

88-002011 Gunn, John Maxwell. THE ROLE OF EPISODIC ACIDIFICATION IN THE EXTINCTION OF LAKE CHARR (*SALVELINUS NAMAYCUSH*) POPULATIONS. *Ph.D. dissertation, Univ. Guelph (Canada)* 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2232. 1988. FR 33(2)

88-002012 Hansson, Sture. EFFECTS OF PULP AND PAPER MILL EFFLUENTS ON COASTAL FISH COMMUNITIES IN THE GULF OF BOTHNIA, BALTIC SEA. *Ambio* 16(6):344-348. 1987. FR 33(2)
[Asko Lab. & Dep. Zool., Univ. Stockholm, S-106 91 Stockholm, Sweden] *Perca fluviatilis, Rutilus rutilus,* and *Gymnocephalus cernua.*

88-002013 Hill, Jennifer; Robert E. Foley; Vicki S. Blazer; Robert G. Werner and John E. Gannon. EFFECTS OF ACIDIC WATER ON YOUNG-OF-THE-YEAR SMALLMOUTH BASS (*MICROPTERUS DOLOMIEUI*). *Environ. Biol. Fishes* 21(3):223-229. 1988. FR 33(2)
[School For. Resour., Univ. Ga., Athens 30602]

88-002014 Hughes, Robert M. and David P. Larsen. ECOREGIONS: AN APPROACH TO SURFACE WATER PROTECTION. *J. Water Pollut. Control Fed.* 60(4):486-493. 1988. FR 33(2)

POLLUTION (CONTINUED)

88-002015 International Council for the Exploration of the Sea. REPORT OF THE ICES ADVISORY COMMITTEE ON MARINE POLLUTION, 1987. *Int. Counc. Explor. Sea Coop. Res. Pap.* No. 150. 155p. 1988. FR 33(2)
[Palaegade 2-4, DK-1261 Copenhagen K, Denmark]

88-002016 Johnston, C. S.; A. H. Gillam and J. Side. THE DEVELOPMENT AND CURRENT STATUS OF ENVIRONMENTAL MONITORING PROGRAMS IN THE NORTH SEA. *Oceans '87 Proc.* Vol. 5. p. 1531. 1987. Abstract only. FR 33(2)
[Inst. Offshore Eng. Res. Park, Riccarton, Edinburgh EH14 4A5, Scotland]

88-002017 Kennicutt, M. C. II; J. M. Brooks; E. L. Atlas and C. S. Giam. ORGANIC COMPOUNDS OF ENVIRONMENTAL CONCERN IN THE GULF OF MEXICO: A REVIEW. *Aquat. Toxicol.* 11(1-2):191-212. 1988. FR 33(2)
[Dep. Oceanogr., Tex. A&M Univ., College Station 77843]

88-002018 Kimura, Ikuo. AQUATIC POLLUTION PROBLEMS IN JAPAN. *Aquat. Toxicol.* 11(3-4):287-301. 1988. FR 33(2)
[Lab. Viral Oncol., Aichi Cancer Cent. Res. Inst., Kanokoden 1-1, Chikusa-ku, Nagoya 464, Japan]

88-002019 Knorr, Donald F. and G. Winfield Fairchild. PERIPHYTON, BENTHIC INVERTEBRATES AND FISHES AS BIOLOGICAL INDICATORS OF WATER QUALITY IN THE EAST BRANCH BRANDYWINE CREEK. *Proc. Pa. Acad. Sci.* 61(1):61-66. 1987. FR 33(2)
[Dep. Environ. Resour., 1875 New Hope St., Norristown, PA 19401]

88-002020 Kuhlmann, Dietrich H. H. THE SENSITIVITY OF CORAL REEFS TO ENVIRONMENTAL POLLUTION. *Ambio* 17(1):13-21. 1988. FR 33(2)
[Zool. Mus., Mus. Nat. Humbolt-Univ., Invalidenstr. 43, 1040 Berlin, East Germany]

88-002021 Kulakkattolickal, A. T. and D. L. Kramer. THE ROLE OF AIR BREATHING IN THE RESISTANCE OF BIMODALLY RESPIRING FISH TO WATERBORNE TOXINS. *J. Fish Biol.* 32(1):119-127. 1988. FR 33(2)
[Dep. Biol., McGill Univ., 1205 Ave. Docteur Penfield, Montreal, PQ, Canada H3A 1B1]

88-002022 Lappalainen, Antti; Martti Rask and Pekka J. Vuorinen. ACIDIFICATION AFFECTS THE PERCH, *PERCA FLUVIATILIS*, POPULATIONS IN SMALL LAKES OF SOUTHERN FINLAND. *Environ. Biol. Fishes* 21(3):231-239. 1988. FR 33(2)
[Rask: Lammi Biol. Stn., Univ. Helsinki, SF-16900 Lammi, Finland]

88-002023 Mac, Michael J. TOXIC SUBSTANCES AND SURVIVAL OF LAKE MICHIGAN SALMONIDS: FIELD AND LABORATORY APPROACHES. *In: Toxic Contaminants and Ecosystem Health: A Great Lakes Focus. Marlene S. Evans, editor.* p. 389-401. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Cent.-Great Lakes, Ann Arbor, MI 48105]

88-002024 Mangor-Jensen, Anders and Hans Jorgen Fyhn. CRITICAL ANALYSIS OF THE EFFECT OF OIL-EXPOSURE ON OSMOTIC PROPERTIES OF DEVELOPING EGGS AND LARVAE OF THE COD, *GADUS MORHUA* L. *Sarsia* 72(3-4):395-400. 1987. FR 33(2)
[Zool. Lab., Univ. Bergen, Allegt. 41, N-5007 Bergen, Norway] *Gadus morhua.*

POLLUTION (CONTINUED)

88-002025 Mearns, Alan J. and Kirk P. Van Ness. ORDER FROM CHAOS? HISTORY OF CHLORINATED PESTICIDE CONTAMINATION OF THE U.S. COASTAL FAUNA. *Oceans '87 Proc.* Vol. 5. p. 1538-1543. 1987. FR 33(2)
[Ocean Assess. Div., NOAA, Seattle, WA 98115]

88-002026 Moffitt, Brenda P. and Joan Stroud. BEHAVIORAL RESPONSES OF BROWN BULLHEAD CATFISH TO CADMIUM ION STRESS. *Am. Zool.* 27(4):113A. 1987. Abstract only. FR 33(2)
[Lehman Coll., Bronx, NY 10468] *Ictalurus nebulosis.*

88-002027 O'Connor, Joseph M. and Robert J. Huggett. AQUATIC POLLUTION PROBLEMS, NORTH ATLANTIC COAST, INCLUDING CHESAPEAKE BAY. *Aquat. Toxicol.* 11(1-2):163-190. 1988. FR 33(2)
[Univ. Med. Cent., A. J. Lanza Res. Lab., Tuxedo Park, NY 10987]

88-002028 Olmsted, Larry L.; Donald J. Degan; John S. Carter and Peter M. Cumbie. ASH BASIN EFFLUENTS AS A CONCERN OF FISHERIES MANAGERS: A CASE HISTORY AND PERSPECTIVE. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 261-269. 1986. FR 33(2)
[Duke Power Co., Rt. 4, Box 531, Huntersville, NC 28078]

88-002029 Rathke, D. E. and J. H. Hartig. CHARACTERIZATION OF TOXIC SUBSTANCE PROBLEMS IN THE GREAT LAKES. *Oceans '87 Proc.* Vol. 5. p. 1526-1530. 1987. FR 33(2)
[Int. Joint Comm., Great Lakes Regional Office, Windsor, ON, Canada]

88-002030 Saleh, H. H. and A. Hamza. STUDY ON THE HEALTH CONDITION OF *TILAPIA ZILLII* GERV. LIVING IN THE POLLUTED WATER OF MERGHIM ZONE, LAKE MARIUT, ALEXANDRIA, (EGYPT). *FAO Fish Rep.* No. 334. (Suppl):132-141. 1986. FR 33(2)
[Alexandria Inst. Oceanogr. & Fish., Kayet Bay, Alexandria, Egypt]

88-002031 Sanders, Randall E. and David J. Altfater. OTTAWA RIVER FISH COMMUNITIES: 1893 TO 1987. *Ohio J. Sci.* 88(2):7-8. 1988. Abstract only. FR 33(2)
[OEPA, 1030 King Ave., Columbus, OH 43212]

88-002032 Schroder, Johannes Horst and Karin Peters. DIFFERENTIAL COURTSHIP ACTIVITY OF COMPETING GUPPY MALES (*POECILIA RETICULATA* PETERS; PISCES: POECILIIDAE) AS AN INDICATOR FOR LOW CONCENTRATIONS OF AQUATIC POLLUTANTS. *Bull. Environ. Contam. Toxicol.* 40(3):396-404. 1988. FR 33(2)
[Inst. Strahlenbiol., Ingolstadter Landstr. 1, D-8042 Neuherberg, West Germany]

88-002033 Serigstad, Bjorn. EFFECT OF OIL-EXPOSURE ON THE OXYGEN UPTAKE OF COD (*GADUS MORHUA* L.) EGGS AND LARVAE. *Sarsia* 72(3-4):401-403. 1987. FR 33(2)
[Inst. Mar. Res., P.O. Box 1870 Nordnes, N-5024 Bergen, Norway]

88-002034 Sprague, J. B. FISH TESTS THAT GIVE USEFUL INFORMATION. *In: Toxic Contaminants and Ecosystem Health: A Great Lakes Focus. Marlene S. Evans, editor.* p. 247-255. 1988. FR 33(2)
[Dep. Zool., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-002035 Swain, Wayland R. HUMAN HEALTH CONSEQUENCES OF CONSUMPTION OF FISH CONTAMINATED WITH ORGANOCHLORINE COMPOUNDS. *Aquat. Toxicol.* 11(3-4):357-377. 1988. FR 33(2)
[Vakgroep Aquat. Oecol., Univ. Amsterdam, Kruislaan 320, 1098 SM Amsterdam, Netherlands]

POLLUTION (CONTINUED)

88-002036 Turnpenny, A. W. H.; C. H. Dempsey; M. H. Davis and J. M. Fleming. FACTORS LIMITING FISH POPULATIONS IN THE LOCH FLEET SYSTEM, AN ACIDIC DRAINAGE SYSTEM IN SOUTH-WEST SCOTLAND. *J. Fish Biol.* 32(1):101-118. 1988. FR 33(2)
[Cent. Electr. Res. Lab., Mar. Biol. Unit, Fawley, Southampton S04 1TW, England]

88-002037 Wohlgemuth, Evzen; Zdenek Stanek and Milan Penaz. TOTAL β-ACTIVITY AND THE CONTENT OF MOST IMPORTANT ARTIFICIAL RADIONUCLIDES IN TISSUES OF FISHES FROM THE JIHLAVA RIVER BASIN. *Folia Zool.* 36(2):183-191. 1987. In English with Russian summ. FR 33(2)
[Inst. Syst. & Ecol. Biol., CSAV, Kvetna 8, 603 65 Brno, Czechoslovakia]

88-002038 Wolfe, Douglas A. MARINE POLLUTION MONITORING: OBJECTIVES AND DESIGN CRITERIA. *Oceans '87 Proc.* Vol. 5. p. 1532-1537. 1987. FR 33(2)
[Ocean Assess. Div., NOAA, Rockville, MD 20852]

88-002039 Zinkl, Joseph G.; Patrick J. Shea; Rodney J. Nakamoto and Josh Callman. TECHNICAL AND BIOLOGICAL CONSIDERATIONS FOR THE ANALYSIS OF BRAIN CHOLINESTERASE OF RAINBOW TROUT. *Trans. Am. Fish. Soc.* 116(4):570-573. 1987. FR 33(2)
[Dep. Clin. Pathol., School Vet. Med., Univ. Calif., Davis 95616] *Salmo gairdneri.*

TOXICOLOGY; BIOASSAYS

88-002040 Albaiges, J.; A. Farran; M. Soler; A. Gallifa and P. Martin. ACCUMULATION AND DISTRIBUTION OF BIOGENIC AND POLLUTANT HYDROCARBONS, PCBs AND DDT IN TISSUES OF WESTERN MEDITERRANEAN FISHES. *Mar. Environ. Res.* 22(1):1-18. 1987. Abstract only. From Deep-Sea Res. Part B Oceanogr. Lit. Rev. 34(12):1076. 1987. FR 33(2)
[Environ. Chem. Dep., Cent. Invest. & Desarrollo CSIC, Jorge Giroma Salgado, 18-26, 08034 Barcelona, Spain]

88-002041 Allen, John L. RESIDUES OF BENZOCAINE IN RAINBOW TROUT, LARGEMOUTH BASS, AND FISH MEAL. *Prog. Fish-Cult.* 50(1):59-60. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., NFRC, P.O. Box 818, La Crosse, WI 54602] *Salmo gairdneri*, and *Micropterus salmoides*.

88-002042 Bailey, George and Jerry Hendricks. ENVIRONMENTAL AND DIETARY MODULATION OF CARCINOGENESIS IN FISH. *Aquat. Toxicol.* 11(1-2):69-75. 1988. FR 33(2)
[Dep. Food Sci. & Technol., Oreg. State Univ., Corvallis 97331]

88-002043 Balci, A. TOXICITY AND BIOACCUMULATION OF PCBs IN MARINE ORGANISMS. *FAO Fish. Rep.* No. 334. (Suppl.):8-10. 1986. FR 33(2)
[Inst. Mar. Sci. & Technol., Dokuz Eylul Univ., Konak-Iznier, Turkey]

88-002044 Belkhir, M. and M. Hadj Ali Salem. OIL SPILL DISPERSANT TOXICITY TO FISH AND MOLLUSCS. *FAO Fish Rep.* No. 334. (Suppl.):11-14. 1986. FR 33(2)
[Oceanogr. & Mar. Pollut. Lab., INSTOP, Salammbo, 2060 La Goulette, Tunisia] *Mugil ramada, Atherina hepsetus*, and *Aphanius fasciatus*.

88-002045 Bengeri, K. V. and H. S. Patil. RESPIRATION, LIVER GLYCOGEN AND BIOACCUMULATION IN *LABEO ROHITA* EXPOSED TO ZINC. *Indian J. Comp. Anim. Physiol.* 4(2):79-84. 1986. FR 33(2)
[Dep. Zool., Karnatak Univ., Dharwad-580 003, India]

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002046 Bhattacharya, Tapati; Arun Kumar Ray and Shelley Bhattacharya. BLOOD GLUCOSE AND HEPATIC GLYCOGEN INTERRELATIONSHIP IN *CHANNA PUNCTATUS* (BLOCH): A PARAMETER OF NONLETHAL TOXICITY BIOASSAY WITH INDUSTRIAL POLLUTANTS. *Indian J. Exp. Biol.* 25(8):539-541. 1987. FR 33(2)
[Bhattacharya, S.: Dep. Zool., School Life Sci., Visra-Bharati Univ., Santiniketan 731 235, India]

88-002047 Black, John J. CARCINOGENICITY TESTS WITH RAINBOW TROUT EMBRYOS: A REVIEW. *Aquat. Toxicol.* 11(1-2):129-142. 1988. FR 33(2)
[Roswell Park Memorial Inst., 666 Elm St., Buffalo, NY 14263] *Salmo gairdneri*.

88-002048 Buhler, Donald R. and David E. Williams. THE ROLE OF BIOTRANSFORMATION IN THE TOXICITY OF CHEMICALS. *Aquat. Toxicol.* 11(1-2):19-28. 1988. FR 33(2)
[Dep. Agric. Chem., Oreg. State Univ., Corvallis 97331]

88-002049 Cairns, John, Jr. MULTISPECIES TOXICITY TESTING. *Pergamon Press* 261p. 1985. FR 33(2)
[Univ. Cent. Environ. Studies, VPI&SU, Blacksburg, VA 24061]

88-002050 Canovas, Manuel and Julio Mas. [THE EFFECT OF CD^{+2} ON THE ACTIVITY OF DELTA-AMINO LEVULINIC ACID DEHYDRATASA (ALA-D) IN LIVER AND SPLEEN OF JUVENILE GOLDEN GREY MULLET (*LIZA AURATA*, RISSO).] *Bol. Inst. Esp. Oceanogr.* 4(1):29-32. 1987. In Spanish with English summ. FR 33(2)
[Inst. Exp. Oceanogr., Cent. Costero Mar. Menor., Apdo. 22, San Pedro Pinatar, Murcia, Spain]

88-002051 Capuzzo, Judith McDowell; Michael N. Moore and John Widdows. EFFECTS OF TOXIC CHEMICALS IN THE MARINE ENVIRONMENT: PREDICTIONS OF IMPACTS FROM LABORATORY STUDIES. *Aquat. Toxicol.* 11(3-4):303-311. 1988. FR 33(2)
[Woods Hole Oceanogr. Inst., Woods Hole, MA 02543]

88-002052 Carrier, Roxie and T. L. Beitinger. RESISTANCE OF TEMPERATURE TOLERANCE ABILITY OF GREEN SUNFISH TO CADMIUM EXPOSURE. *Bull. Environ. Contam. Toxicol.* 40(4):475-480. 1988. FR 33(2)
[Beitinger: Div. Environ. Sci., Dep. Biol. Sci., N. Tex. State Univ., Denton 76203] *Lepomis cyanellus*.

88-002053 Chagnon, Norman L. and Sheldon I. Guttman. DIFFERENTIAL SURVIVORSHIP OF ALLOZYME GENOTYPES IN MOSQUITOFISH (*GAMBUSIA AFFINIS*) POPULATIONS EXPOSED TO COPPER OR CADMIUM. *Ohio J. Sci.* 88(2):46. 1988. Abstract only. FR 33(2)
[Dep. Zool., Miami Univ., Oxford, OH 45056]

88-002054 Clark, Tom; Kathryn Clark; Sally Paterson; Donald Mackay and Ross J. Norstrom. WILDLIFE MONITORING, MODELING, AND FUGACITY. *Environ. Sci. Technol.* 22(2):120-127. 1988. FR 33(2)
[Inst. Environ. Studies, Univ. Toronto, Toronto, ON, Canada M5S 1A4]

88-002055 Cleland, Glenn B.; Paul J. McElroy and Ronald A. Sonstegard. THE EFFECT OF DIETARY EXPOSURE TO AROCLOR 1254 AND/OR MIREX ON HUMORAL IMMUNE EXPRESSION OF RAINBOW TROUT (*SALMO GAIRDNERI*). *Aquat. Toxicol. (Amst.)* 12(2):141-146. 1988. FR 33(2)
[Dep. Pathol., McMaster Univ. Med. Cent., 1200 Main St. W., Hamilton, ON, Canada L8N 3Z5]

88-002056 Cleland, Glenn B.; Barry G. Oliver and Ronald A. Sonstegard. BIOACCUMULATION OF HALOGENATED AROMATIC HYDROCARBONS IN C57B1/6 AND DBA/2 MICE FOLLOWING CONSUMPTION OF GREAT LAKES COHO SALMON (*ONCORHYNCHUS*

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002056 CONTINUED KISUTCH). *Chemosphere* 17(2) 405-420 1988 FR 33(2)
[Dep. Pathol., McMaster Univ., Hamilton, ON, Canada L8N 3Z5]

88-002057 Cockell, K. A. and J. W. Hilton. PRELIMINARY INVESTIGATIONS ON THE COMPARATIVE CHRONIC TOXICITY OF FOUR DIETARY ARSENICALS TO JUVENILE RAINBOW TROUT (*SALMO GAIRDNERI R.*). *Aquat. Toxicol.* 12(1) 73-82 1988. FR 33(2)
[Dep. Nutr. Sci., Coll. Biol. Sci., Univ. Guelph, Guelph, ON, Canada N1G 2W1]

88-002058 Collier, Tracy K. and Usha Varanasi. BIOCHEMICAL INDICATORS OF CONTAMINANT EXPOSURE IN FLATFISH FROM PUGET SOUND, WA. *Oceans '87 Proc.* Vol. 5. p. 1544-1549. 1987. FR 33(2)
[Environ. Conserv. Div., NW and Alaska Fish Cent., NMFS, NOAA, 2725 Montlake Blvd. E., Seattle, WA 98112] *Parophrys vetulus* and *Platichthys stellatus*.

88-002059 Couillard, C. M., P. A. Berman and J. C. Parrisset. HISTOPATHOLOGY OF RAINBOW TROUT EXPOSED TO A BLEACHED KRAFT PULP MILL EFFLUENT. *Arch. Environ. Contam. Toxicol.* 17(3):319-323. 1988. FR 33(2)
[Dep. Vet. Pathol., West. Coll. Vet. Med., Univ. Saskatchewan, Saskatoon, SN, Canada S7N 0W0] *Salmo gairdneri*.

88-002060 Dallinger, R.; F. Prosi, H. Segner and H. Back. CONTAMINATED FOOD AND UPTAKE OF HEAVY METALS BY FISH: A REVIEW AND A PROPOSAL FOR FURTHER RESEARCH. *Oecologia (Berl.)* 73(1):91-98. 1987. FR 33(2)
[Inst. Zool., Technikerstr. 25, A-6020 Innsbruck, Austria]

88-002061 Daniels, Harry V., Claude E. Boyd and P. Vernon Minton. ACUTE TOXICITY OF AMMONIA AND NITRITE TO SPOTTED SEATROUT. *Prog. Fish-Cult.* 49(4):260-263. 1987. FR 33(2)
[Dep. Fish. & Allied Aquacult., Auburn Univ., Auburn, AL 36849] *Cynoscion nebulosus*.

88-002062 Davis, William P. REPRODUCTIVE AND DEVELOPMENTAL RESPONSES IN THE SELF-FERTILIZING FISH, *RIVULUS MARMORATUS*, INDUCED BY THE PLASTICIZER, DI-N-BUTYLPHTHALATE. *Environ. Biol. Fishes* 21(2):81-90. 1988. FR 33(2)
[Gulf Breeze Environ. Res. Lab., U.S. Environ. Protection Agency, Gulf Breeze, FL 32561]

88-002063 de la Cruz, Armando and Mary L. Davidson. EFFECT OF SALINITY ON SUSCEPTIBILITY OF FISH TO MANGROVE PHYTOTOXINS. *J. Miss. Acad. Sci.* 33(Suppl.):115. 1988. Abstract only. FR 33(2)
[Dep. Biol. Sci., Miss. State Univ., Mississippi State, 39762] *Tilapia aurea*.

88-002064 Deneer, J. W.; W. Seinen and J. L. M. Hermens. THE ACUTE TOXICITY OF ALDEHYDES TO THE GUPPY. *Aquat. Toxicol. (Amst.)* 12(2):185-192. 1988. FR 33(2)
[Dep. Vet. Pharmacol., Pharmacy & Toxicol., Univ. Utrecht, P.O. Box 80176, 3508 TD Utrecht, Netherlands]

88-002065 Eisler, Ronald. ARSENIC HAZARDS TO FISH, WILDLIFE, AND INVERTEBRATES: A SYNOPTIC REVIEW. *U.S. Fish Wildl. Serv. Biol. Rep.* 85(1.12):92p. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Patuxent Wildl. Res. Cent., Laurel, MD 20708]

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002066 El-Rayis, O. A.-M. BIOACCUMULATION OF CADMIUM IN PLANKTON, BIVALVES, CRUSTACEA AND IN DIFFERENT ORGANS OF SIX FISH SPECIES FROM MEX BAY, WEST OF ALEXANDRIA. *FAO Fish Rep.* No. 334. (Suppl.):50-56. 1986. FR 33(2)
[Oceanogr. Dep., Fac. Sci., Alexandria Univ., Alexandria, Egypt]

88-002067 El-Rayis, O. A.-M. and A.-A. Ezzat. BIOACCUMULATION OF SOME HEAVY METALS IN COASTAL MARINE ANIMALS IN THE VICINITY OF ALEXANDRIA. I. BIOASSAY. *FAO Fish Rep.* No. 334. p. 57-66. 1986. FR 33(2)
[Oceanogr. Dep., Fac. Sci., Alexandria Univ., Alexandria, Egypt]

88-002068 El-Rayis, O. A.-M. and A. A. Ezzat. BIOACCUMULATION OF SOME HEAVY METALS IN COASTAL MARINE ANIMALS IN THE VICINITY OF ALEXANDRIA. II. - SURVEYING. *FAO Fish Rep.* No. 334. (Suppl.):67-72. 1986. FR 33(2)
[Oceanogr. Dep., Fac. Sci., Alexandria Univ., Alexandria, Egypt]

88-002069 El-Sebae, A. H.; M. A. El-Amayem; I. Sharaf and M. Massod. FACTORS AFFECTING ACUTE AND CHRONIC TOXICITY OF CHLORINATED PESTICIDES AND THEIR BIOMAGNIFICATION IN ALEXANDRIA REGION. *FAO Fish Rep.* No. 334. (Suppl.):73-79. 1986. FR 33(2)
[Pestic. Div., Fac. Agric. & Oceanogr. Dep., Fac. Sci., Univ. Alexandria, Alexandria, Egypt]

88-002070 Falk-Petersen, Inger-Britt and Elin Kjorsvik. ACUTE TOXICITY TESTS OF THE EFFECTS OF OILS AND DISPERSANTS ON MARINE FISH EMBRYOS AND LARVAE - A REVIEW. *Sarsia* 72(3-4):411-413. 1987. FR 33(2)
[Inst. Fish., Univ. Tromso, P.O. Box 3083, Guleng, N-9001 Tromso, Norway] *Gadus morhua, Pleuronectes platessa,* and *Platichthys flesus.*

88-002071 FAO of the UN. PAPERS PRESENTED AT THE FAO/UNEP MEETING ON THE TOXICITY AND BIOACCUMULATION OF SELECTED SUBSTANCES IN MARINE ORGANISMS. *FAO Fish. Rep.* No. 334 (Suppl). 164p. 1986. FR 33(2)
[Rome, Italy] Selected chapters indexed in this issue of *Fisheries Review.*

88-002072 Ferrando, M. D.; M. M. Almar and E. Andreu. LETHAL TOXICITY OF LINDANE ON A TELEOST FISH, *ANGUILLA ANGUILLA* FROM ALBUFERA LAKE (SPAIN): HARDNESS AND TEMPERATURE EFFECTS. *J. Environ. Sci. Heath Part B Pestic. Food Contam. Agric. Wastes* 23(1):45-52. 1988. FR 33(2)
[Dep. Anim. Physiol., Fac. Biol. Sci., Univ. Valencia, Burjassot., Valencia, Spain]

88-002073 Gillespie, Robert B. and Sheldon I. Guttman. RELATIONSHIPS BETWEEN GENETIC STRUCTURE OF ELECTROPHORETICALLY-DETERMINED ALLOZYMES IN FISH POPULATIONS AND EXPOSURE TO CONTAMINANTS. *Ohio J. Sci.* 88(2):46. 1988. Abstract only. FR 33(2)
[Dep. Zool., Miami Univ., Oxford, OH 45056]

88-002074 Gottofrey, James; Ingvar Bjorklund and Hans Tjalve. EFFECT OF SODIUM ISOPROPYLXANTHATE, POTASSIUM AMYLXANTHATE AND SODIUM DIETHYLDITHIOCARBAMATES ON THE UPTAKE AND DISTRIBUTION OF CADMIUM IN THE BROWN TROUT (*SALMO TRUTTA*). *Aquat. Toxicol. (Amst.)* 12(2):171-184. 1988. FR 33(2)
[Tjalve: Dep. Pharmacol. & Toxicol., Swedish Univ. Agric. Sci., Box 573, S-75123 Uppsala, Sweden]

88-002075 Gunn, John M. and David L. G. Noakes. LATENT EFFECTS OF PULSE EXPOSURE TO ALUMINUM AND LOW pH ON SIZE, IONIC COMPOSITION, AND FEEDING EFFICIENCY OF LAKE TROUT (*SALVELINUS NAMAYCUSH*) ALEVINS. *Can. J. Fish.*

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002075 CONTINUED *Aquat. Sci.* 44(8):1418-1424. 1987. In English with French summ. FR 33(2)
[Fish. Branch, Ontario Minist. Nat. Resour., Toronto, ON, Canada M7A 1W3]

88-002076 Guseva, S. S.; O. P. Danilchenko and I. G. Korpakova. [THE REACTION OF THE CARP *CYPRINUS CARPIO* L. TO THE ACTION OF ORGANIC PHOSPHORUS COMPOUNDS IN THE SUCCESSIVE ONTOGENESIS STAGES.] *Biol. Naukl (Mosc.)* 289(1):53-58. 1988. In Russian with English summ. FR 33(2)

88-002077 Haahti, Hannu and Matti Perttila. LEVELS AND TRENDS OF ORGANOCHLORINES IN COD AND HERRING IN THE NORTHERN BALTIC. *Mar. Pollut. Bull.* 19(1):29-32. 1988. FR 33(2)
[Inst. Mar. Res., P.O. Box 33, SF-00931 Helsinki, Finland] *Clupea harengus* and *Gadus morhua*.

88-002078 Hamilton, Steven J.; Paul M. Mehrle and John R. Jones. EVALUATION OF METALLOTHIONEIN MEASUREMENTS AS A BIOLOGICAL INDICATOR OF STRESS FROM CADMIUM IN BROOK TROUT. *Trans. Am. Fish. Soc.* 116(4):551-560. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Contam. Res. Cent., Field Res. Stn., R.R. 1, Box 295, Yankton, SD 57078] *Salvelinus fontinalis*.

88-002079 Hamilton, Steven J.; Paul M. Mehrle and John R. Jones. CADMIUM-SATURATION TECHNIQUE FOR MEASURING METALLOTHIONEIN IN BROOK TROUT. *Trans. Am. Fish. Soc.* 116(4):541-550. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Contam. Res. Cent., Field Res. Stn., R.R. 1, Box 295, Yankton, SD 57078] *Salvelinus fontinalis*.

88-002080 Hawkins, W. E.; R. M. Overstreet and W. W. Walker. CARCINOGENICITY TESTS WITH SMALL FISH SPECIES. *Aquat. Toxicol.* 11(1-2):113-128. 1988. FR 33(2)
[Gulf Coast Res. Lab., Ocean Springs, MS 39564]

88-002081 Heming, Thomas A. and Karen A. Blumhagen. PLASMA ACID-BASE AND ELECTROLYTE STATES OF RAINBOW TROUT EXPOSED TO ALUM (ALUMINUM SULPHATE) IN ACIDIC AND ALKALINE ENVIRONMENTS. *Aquat. Toxicol. (Amst.)* 12(2):125-140. 1988. FR 33(2)
[Pulmonary Div., Rt. E-61, Univ. Tex. Med. Branch, Galveston 77550]
Salmo gairdneri

88-002082 Hilton, J. W. and W. J. Bettger. DIETARY VANADIUM TOXICITY IN JUVENILE RAINBOW TROUT: A PRELIMINARY STUDY. *Aquat. Toxicol.* 12(1):63-71. 1988. FR 33(2)
[Dep. Nutr. Sci., Coll. Biol. Sci., Univ. Guelph, Guelph, ON, Canada N1G 2W1] *Salmo gairdneri*.

88-002083 Hinton, David E.; John A. Couch; Swee J. Teh and Lee A. Courtney. CYTOLOGICAL CHANGES DURING PROGRESSION OF NEOPLASIA IN SELECTED FISH SPECIES. *Aquat. Toxicol.* 11(1-2):77-112. 1988. FR 33(2)
[Dep. Med., School Vet. Med., Univ. Calif., Davis 95616] *Cyprinodon variegatus* and *Oryzias latipes*.

88-002084 Hodson, Peter V. THE EFFECT OF METAL METABOLISM ON UPTAKE, DISPOSITION AND TOXICITY IN FISH. *Aquat. Toxicol.* 11(1-2):3-18. 1988. FR 33(2)
[Great Lakes Lab., Cent. Inl. Waters, Box 5050, Burlington, ON, Canada L7R 4A6]

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002085 Holdway, D. A. THE TOXICITY OF CHROMIUM TO FISH. *In: Chromium in the Natural and Human Environments. Jerome O. Nriagu and Evert Nieboer, editors.* p. 369-397. 1988. FR 33(2)
[Alligator Rivers Region Res. Inst., Jabiru, N.T., Australia]

88-002086 Holdway, D. A. and D. G. Dixon. ACUTE TOXICITY OF PERMETHRIN OR GLYPHOSATE PULSE EXPOSURE TO LARVAL WHITE SUCKER (*CATOSTOMUS COMMERSONI*) AND JUVENILE FLAGFISH (*JORDANELLA FLORIDAE*) AS MODIFIED BY AGE AND RATION LEVEL. *Environ. Toxicol. Chem.* 7(1):63-68. 1988. FR 33(2)
[Dixon: Dep. Biol., Univ. Waterloo, Waterloo, ON, Canada N2L 3G1]

88-002087 James, Margaret O.; Cherie S. Heard and William E. Hawkins. EFFECT OF 3-METHYLCHOLANTHRENE ON MONOOXYGENASE, EPOXIDE HYDROLASE, AND GLUTATHIONE S-TRANSFERASE ACTIVITIES IN SMALL ESTUARINE AND FRESHWATER FISH. *Aquat. Toxicol.* 12(1):1-15. 1988. FR 33(2)
[Dep. Med. Chem., Coll. Pharm., Univ. Fla., Box J-485, Gainesville 32610] *Fundulus grandis, Cyprinodon variegatus, Poecilia latipinna, P. reticulata, Oryzias latipes,* and *Pimephales promelas.*

88-002088 Jarvinen, Alfred W.; Danny K. Tanner and Edward R. Kline. TOXICITY OF CHLORPYRIFOS, ENDRIN, OR FENVALERATE TO FATHEAD MINNOWS FOLLOWING EPISODIC OR CONTINUOUS EXPOSURE. *Ecotoxicol. Environ. Safety* 15(1):78-95. 1988. FR 33(2)
[U.S. Environ. Protection Agency, Environ. Res. Lab., 6201 Congdon Blvd., Duluth, MN 55804] *Pimephales promelas.*

88-002089 Kelly, R. K.; J. F. Klaverkamp; R. V. Hunt and O. Nielsen. CHEMICAL ANALYSIS OF MUSCLE FROM WALLEYE (*STIZOSTEDION VITREUM VITREUM*) WITH MYOFIBROGRANULOMA, A CHRONIC MYOPATHY. *Can. J. Fish. Aquat. Sci.* 44(8):1425-1431. 1987. In English with French summ. FR 33(2)
[Dep. Fish. & Oceans, Freshwater Inst., Central & Arctic Region, Winnipeg, MB, Canada R3T 2N6]

88-002090 Kennish, John M. METABOLISM OF VOLATILE HYDROCARBONS BY PACIFIC SALMON MICROSOMAL PREPARATIONS. *Alaska Sci. Conf.* 38:150. 1987. Abstract only. FR 33(2)
[Dep. Chem./Physics, Univ. Alaska, Anchorage] *Oncorhynchus kisutch* and *O. tshawytscha.*

88-002091 Klauda, Ronald J. and Robert E. Palmer. RESPONSES OF BLUEBACK HERRING EGGS AND LARVAE TO PULSES OF ACID AND ALUMINUM. *Trans. Am. Fish. Soc.* 116(4):561-569. 1987. FR 33(2)
[Johns Hopkins Univ., Appl. Physics Lab., Shady Side, MD 27064] *Alosa aestivalis.*

88-002092 Krajnovic-Ozretic, M. and B. Ozretic. TOXICITY TESTING IN THE MARINE ENVIRONMENT. *FAO Fish Rep.* No. 334. (Suppl):80-90. 1986. FR 33(2)
[Cent. Mar. Res. Rovinj, "Rudjer Boskovic" Inst., 52210 Rovinj, Yugoslavia]

88-002093 Lacroix, Gilles L. and Donald R. Townsend. RESPONSES OF JUVENILE ATLANTIC SALMON (*SALMO SALAR*) TO EPISODIC INCREASES IN ACIDITY OF NOVA SCOTIA RIVERS. *Can. J. Fish. Aquat. Sci.* 44(8):1475-1484. 1987. In English with French summ. FR 33(2)
[Dep. Fish. & Oceans, Biol. Stn., St. Andrews, NB, Canada EOG 2X0]

88-002094 Leung, P. C. and D. E. Coceancic. AN INTERLABORATORY STUDY OF MERCURY IN FISH BASED ON THE ONTARIO FISH CONTAMINANT MONITORING PROGRAM. *Sci. Total Environ.* 71(1):131-139. 1988. FR 33(2)

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002094 CONTINUED
[Minist. Environ., Northwest. Regional Lab., Thunder Bay, ON, Canada P7E 2V6] *Esox lucius* and *Stizostedion vitreum vitreum*.

88-002095 Malins, D. C.; B. B. McCain; J. T. Landahl; M. S. Myers; M. M. Krahn; D. W. Brown; S.-L. Chan and W. T. Roubal. NEOPLASTIC AND OTHER DISEASES IN FISH IN RELATION TO TOXIC CHEMICALS: AN OVERVIEW. *Aquat. Toxicol.* 11(1-2):43-67. 1988. FR 33(2)
[Pac. Northwest Res. Found., 1102 Columbia St., Seattle, WA 98104]

88-002096 Martic, M.; N. Ajdacic; J. Stjepcevic and M. J. Gasic. INVESTIGATION OF TRACE ELEMENT DISTRIBUTION IN THE AQUATIC SYSTEM OF THE BOKA KOTORSKA BAY. *FAO Fish Rep.* No. 334. (Suppl.):91-94. 1986. FR 33(2)
["Boris Kidric" Inst. Nuclear Sci.-Vinca, Radiation Protection Dep., Yugoslavia]

88-002097 Masnado, Robert G. POLYCHLORINATED BIPHENYL CONCENTRATIONS OF EIGHT SALMONID SPECIES FROM THE WISCONSIN WATERS OF LAKE MICHIGAN: 1985. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 132. 56p. 1987. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI] *Salvelinus fontinalis, Salmo trutta, S. gairdneri, Salvelinus namaycush, Oncorhynchus tshawytscha,* and *O. kisutch*.

88-002098 McCain, Bruce B.; Donald W. Brown; Margaret M. Krahn; Mark S. Myers; Robert C. Clark, Jr.; Sin-Lam Chan and Donald C. Malins. MARINE POLLUTION PROBLEMS, NORTH AMERICAN WEST COAST. Aquat. Toxicol. 11(1-2): 143-162. 1988 FR 33(2)
[Pac. Northwest Res. Foundation, 1102 Columbia St., Seattle, WA 98104] *Parophrys vetulus*

88-002099 McGeachy, Sandi M. and Gerard Leduc. THE INFLUENCE OF SEASON AND EXERCISE ON THE LETHAL TOXICITY OF CYANIDE TO RAINBOW TROUT (*SALMO GAIRDNERI*). *Arch. Environ. Contam. Toxicol.* 17(3):313-318. 1988. FR 33(2)
[Dep. Biol., Univ. Waterloo, Waterloo, ON, Canada N2L 3G1]

88-002100 Mehrle, Paul M.; Denny R. Buckler; Edward E. Little; Larry M. Smith; Jim D. Petty; Paul H. Peterman; David L. Stalling; G. M. De Graeve; James J. Coyle and William J. Adams. TOXICITY AND BIOCONCENTRATION OF 2,3,7,8-TETRACHLORODIBENZODIOXIN AND 2,3,7,8-TETROCHLORODIBENZOFURAN IN RAINBOW TROUT. *Environ. Toxicol. Chem.* 7(1):47-62. 1988. FR 33(2)
[Natl. Fish. Contam. Res. Cent., U.S. Fish & Wildl. Serv., Columbia, MO 65201] *Salmo gairdneri*.

88-002101 Metcalfe, C. D. INDUCTION OF MICRONUCLEI AND NUCLEAR ABNORMALITIES IN THE ERYTHROCYTES OF MUDMINNOWS (*UMBRA LIMI*) AND BROWN BULLHEADS (*ICTALURUS NEBULOSUS*). *Bull. Environ. Contam. Toxicol.* 40(4):489-495. 1988. FR 33(2)
[Environ. & Resour. Studies Program, Trent Univ., Peterborough, ON, Canada K9J 7B8]

88-002102 Meteyer, Marc J.; David A. Wright and F. Douglas Martin. EFFECT OF CADMIUM ON EARLY DEVELOPMENTAL STAGES OF THE SHEEPSHEAD MINNOW (*CYPRINODON VARIEGATUS*). *Environ. Toxicol. Chem.* 7(4):321-328. 1988. FR 33(2)
[Wright: Cent. Environ. & Estuarine Studies, Univ. Md., Chesapeake Biol. Lab., Solomons 20688-0038]

88-002103 Munkittrick, K. R. and D. G. Dixon. EVIDENCE FOR A MATERNAL YOLK FACTOR ASSOCIATED WITH INCREASED TOLERANCE AND RESISTANCE OF FERAL WHITE SUCKER (*CATOSTOMUS COMMERSONI*) TO WATERBORNE COPPER. *Ecotoxicol.*

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002103 CONTINUED *Environ. Safety* 15(1):7-20. 1988. FR 33(2)
[Dixon: Dep. Biol., Univ. Waterloo, Waterloo, ON, Canada N2L 3G1]

88-002104 Nath, Kedar and Nishith Kumar. COBALT INDUCED ALTERATIONS IN THE CARBOHYDRATE METABOLISM OF A FRESHWATER TROPICAL PERCH, *COLISA FASCIATUS*. *Chemosphere* 17(2):465-474. 1988. FR 33(2)
[Dep. Zool., Univ. Gorakhpur, Gorakhpur-273009 (U.P.), India]

88-002105 Newman, Michael C. and Stephen V. Mitz. SIZE DEPENDENCE OF ZINC ELIMINATION AND UPTAKE FROM WATER BY MOSQUITOFISH *GAMBUSIA AFFINIS* (BAIRD AND GIRARD). *Aquat. Toxicol.* 12(1):17-32. 1988. FR 33(2)
[Savannah River Ecol. Lab., Univ. Ga., Drawer E, Aiken, SC 29801]

88-002106 Nriagu, Jerome O. and Evert Nieboer, editors. CHROMIUM IN THE NATURAL AND HUMAN ENVIRONMENTS. *John Wiley & Sons* 571p. 1988. FR 33(2)
[Natl. Water Res. Inst., Burlington, ON, Canada]

88-002107 Odenkirchen, Edward W. and Ronald Eisler. CHLORPYRIFOS HAZARDS TO FISH, WILDLIFE, AND INVERTEBRATES: A SYNOPTIC REVIEW. *U.S. Fish Wildl. Serv. Biol. Rep.* 85(1.13):35p. 1988. Available from Sect. Inf. Manage., Patuxent Wildl. Res. Cent., U.S. Fish & Wildl. Serv., Laurel, MD 20708. FR 33(2)
[Dep. Biol., American Univ., Washington, DC 20016]

88-002108 Opperhuizen, Antoon and Paul I. Voors. BIOCONCENTRATION KINETICS OF 2,4,5- TRI- AND 3,3',4,4'-TETRACHLOROBIPHENYL AND 2,4,5- TRI-AND 3,3',4,4'-TETRACHLORODIPHENYLETHER IN FISH. *Chemosphere* 16(10-12):2379-2388. 1987. FR 33(2)
[Lab. Environ. & Toxicol. Chem., Univ. Amsterdam, Nieuwe Achtergracht 166, 1018 WV Amsterdam, Netherlands]

88-002109 Opperhuizen, Antoon and S. Marca Schrap. UPTAKE EFFICIENCIES OF TWO POLYCHLOROBIPHENYLS IN FISH AFTER DIETARY EXPOSURE TO FIVE DIFFERENT CONCENTRATIONS. *Chemosphere* 17(2):253-262. 1988. FR 33(2)
[Lab. Environ. & Toxicol. Chem., Univ. Amsterdam, Nieuwe Achtergracht 166, 1018 WV Amsterdam, Netherlands] *Poecilia reticulata*.

88-002110 Paller, M. H.; R. C. Heidinger and W. M. Lewis. IMPACT OF NONCHLORINATED SECONDARY AND TERTIARY EFFLUENTS ON WARM WATER FISH COMMUNITIES. *Water Resour. Bull.* 24(1):65-76. 1988. FR 33(2)
[Environ. & Chem. Sci., Inc., P.O. Box 1393, Aiken, SC 29802]

88-002111 Parkhurst, Benjamin Rice. A COMPARISON OF LABORATORY AND *IN SITU* BIOASSAYS FOR EVALUATING THE TOXICITY OF ACIDIC WATERS TO BROOK TROUT. *Ph.D. dissertation, Univ. Wyo.* 150p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2249. 1988. FR 33(2)

88-002112 Ramaprabhu, T.; S. R. Ghose; K. M. Das and A. N. Mohanti. SOME OBSERVATIONS ON THE USE OF AMMONIA AS A FISH TOXICANT. *Indian J. Comp. Anim. Physiol.* 4(1):39-48. 1986. FR 33(2)
[C.I.F. Res. Cent., 51, 8th Cross, 7th Main, Malleswaram, Bangalore-560 003, India]

88-002113 Rani, V. Joyce Shobha; P. Venkateshwarlu; C. Janaiah and Msk. Prasad. EFFECT OF DICHLORVOS (DDVP) ON CERTAIN BLOOD PARAMETERS OF THE TELEOST, *CLARIAS BATRACHUS* (LINN). *Indian J. Comp. Anim. Physiol.*

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002113 CONTINUED 5(1):18-21. 1987. FR 33(2)
[Dep. Zool., Kakatiya Univ. Warangal 506 009, A.P., India]

88-002114 Ravi, G. and V. R. Selvarajan. SUBLETHAL EFFECT OF PHOSALONE ON THE ACTIVITY OF ACETYCHOLINESTERASE OF THE CENTRAL NERVOUS SYSTEM OF THE TWO SPECIES OF FISH. *Indian J. Comp. Anim. Physiol.* 4(2):126-131. 1986. FR 33(2)
[Dep. Zool., Guindy Campus, Univ. Madras, Madras-600025, India] *Labeo rohita* and *Cyprinus carpio communis*.

88-002115 Richmonds, C. and H. M. Dutta. HISTOPATHOLOGICAL EFFECTS OF MALATHION ON THE GILLS OF THE BLUEGILL *LEPOMIS MACROCHIRUS*. *Am. Zool.* 27(4):126A. 1987. Abstract only. FR 33(2)
[Kent State Univ., Kent, OH]

88-002116 Richmonds, Chelliah and Hiran M. Dutta. ACTION OF MALATHION ON THE GILLS OF BLUEGILL SUNFISH, *LEPOMIS MACROCHIRUS*. *Ohio J. Sci.* 88(2):7. 1988. Abstract only. FR 33(2)
[Dep. Biol. Sci., Kent. State Univ., Kent, OH 44242]

88-002117 Scholefield, Ronald J. A COMPARISON OF TWO METHODS FOR THE SIMULTANEOUS DETERMINATION OF TFM AND BAYER 73 CONCENTRATIONS. *Great Lakes Fish. Comm. Tech. Rep.* No. 50. p. 1-8. 1987. FR 33(2)
[U.S. Fish. & Wildl. Serv., Natl. Fish. Res. Lab., Hammond Bay Biol. Stn., Millersburg, MI 49759]

88-002118 Schrap, S. Marca and Antoon Opperhuizen. ELIMINATION KINETICS OF TWO UNMETABOLIZED POLYCHLORINATED BIPHENYLS IN *POECILIA RETICULATA* AFTER DIETARY EXPOSURE. *Bull. Environ. Contam. Toxicol.* 40(3):381-388. 1988. FR 33(2)
[Opperhuizen: Lab. Environ. & Toxicol. Chem., Univ. Amsterdam, Nieuwe Achtergracht 166, 1018 WV Amsterdam, Netherlands]

88-002119 Scudder, Barbara C.; James L. Carter and Harry V. Leland. EFFECTS OF COPPER ON DEVELOPMENT OF THE FATHEAD MINNOW, *PIMEPHALES PROMELAS* REFINESQUE. *Aquat. Toxicol. (Amst.)* 12(2):107-124. 1988. FR 33(2)
[U.S. Geol. Surv., Water Resour. Div., 345 Middlefield Rd., M/S 465, Menlo Park, CA 94025]

88-002120 Seelye, James G.; Leif L. Marking; Everett Louis King, Jr.; Lee H. Hanson and Terry D. Bills. TOXICITY OF TFM LAMPRICIDE TO EARLY LIFE STAGES OF WALLEYE. *N. Am. J. Fish. Manage.* 7(4):598-601. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. Lab., Hammond Bay Biol. Stn., Millersburg, MI 49759] *Stizostedion vitreum*

88-002121 Segner, Helmut; Roland Marthaler and Michael Linnenbach. GROWTH, ALUMINUM UPTAKE AND MUCOUS CELL MORPHOMETRICS OF EARLY LIFE STAGES OF BROWN TROUT, *SALMO TRUTTA*, IN LOW pH WATER. *Environ. Biol. Fishes* 21(2):153-159. 1988. FR 33(2)
[Zool. Inst. I, Im Neuenheimer Feld 230, D 6900 Heidelberg, West Germany]

88-002122 Sorensen, Elsie M. B. SELENIUM ACCUMULATION, REPRODUCTIVE STATUS, AND HISTOPATHOLOGICAL CHANGES IN ENVIRONMENTALLY EXPOSED REDEAR SUNFISH. *Arch. Toxicol.* 61(4):324-329. 1988. FR 33(2)
[Coll. Pharmacol., Dep. Pharmacol./Toxicol., Univ. Tex., Austin 78712] *Lepomis microlophus* in Texas.

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002123 Spitsbergen, Jan M.; James M. Kleeman and Richard E. Peterson. MORPHOLOGIC LESIONS AND ACUTE TOXICITY IN RAINBOW TROUT (*SALMO GAIRDNERI*) TREATED WITH 2,3,7,8-TETRACHLORODIBENZO-p-DIOXIN. *J. Toxicol. Environ. Health* 23(3):333-358. 1988. FR 33(2)
[Peterson: School Pharmacy, Univ. Wis., 425 N. Charter St., Madison 53706]

88-002124 Spitsbergen, Jan M.; James M. Kleeman and Richard E. Peterson. 2,3,7,8-TETRACHLORODIBENZO-p-DIOXIN TOXICITY IN YELLOW PERCH (*PERCA FLAVESCENS*). *J. Toxicol. Environ. Health* 23(3):359-383. 1988. FR 33(2)
[Peterson: School Pharmacy, Univ. Wis., 425 N. Charter St., Madison 53706]

88-002125 Sulaiman, Abdul Halim B. COMPARATIVE TOXICITY: ACUTE TOXICITY RELATIONSHIPS FOR SELECTED FRESHWATER ORGANISMS USING A NEW MULTISPECIES TESTING METHOD. *Ph.D. dissertation, Univ. Wis. (Madison)* 181p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(6):1588-1589. 1987. FR 33(2)

88-002126 Tate, Laurence G. CHARACTERIZATION OF PHASE I AND PHASE II DRUG METABOLISM AND THE EFFECT OF β-NAPHTHOFLAVONE IN THE LIVER AND POSTERIOR KIDNEY OF THE CHANNEL CATFISH, *ICTALURUS PUNCTATUS*. *Arch. Environ. Contam. Toxicol.* 17(3):325-332. 1988. FR 33(2)
[Dep. Biol. Sci., Univ. South Ala., Mobile 36688]

88-002127 Tort, L. and P. Torres. THE EFFECTS OF SUBLETHAL CONCENTRATIONS OF CADMIUM ON HAEMATOLOGICAL PARAMETERS IN THE DOGFISH, *SCYLIORHINUS CANICULA*. *J. Fish Biol.* 32(2):277-282. 1988. FR 33(2)
[Dep. Biol. Cell & Fisiol., Fac. Cienc., Univ. Autonoma Barcelona, Bellaterra, Spain]

88-002128 Tudor, M. and I. Katavic. ACUTE TOXICITY OF AN OIL DISPERSANT ON THE DEVELOPMENTAL STAGES OF THE SEA BASS (*DICENTRARCHUS LABRAX*). *FAO Fish Rep.* No. 334. (Suppl.):142-148. 1986. FR 33(2)
[Inst. Oceanogr. & Fish., Split, Yugoslavia]

88-002129 Urrutia, Michael L. and J. R. Tomasso. ACCLIMATION OF CHANNEL CATFISH TO ENVIRONMENTAL NITRITE. *J. World Aquacult. Soc.* 18(3):175-179. 1987. FR 33(2)
[Tomasso: Dep. Agric. Fish. & Wildl., Clemson Univ., Clemson, SC 29634] *Ictalurus punctatus*.

88-002130 von Westernhagen, Hein; Volkert Dethlefsen; Patricia Cameron and Dieter Janssen. CHLORINATED HYDROCARBON RESIDUES IN GONADS OF MARINE FISH AND EFFECTS ON REPRODUCTION. *Sarsia* 72(3-4):419-422. 1987. FR 33(2)
[Biol. Anstalt Helgoland, Notkestr. 31, 2 Hamburg 52, West Germany] *Platichthys flesus, Gadus morhua,* and *Merlangius merlangus*.

88-002131 Watanabe, Isao; Takashi Kashimoto and Ryo Tatsukawa. POLYBROMINATED BIPHENYL ETHERS IN MARINE FISH, SHELLFISH AND RIVER AND MARINE SEDIMENTS IN JAPAN. *Chemosphere* 16(10-12):2389-2396. 1987. FR 33(2)
[Osaka Perfectural Inst. Public Health, 1-3-69 Nakamichi, Higashinari-ku, Osaka 537, Japan]

88-002132 Weis, Judith S.; Peddrick Weis and Fengsong Wang. DEVELOPMENTAL EFFECTS OF TRIBUTYLTIN ON THE FIDDLER CRAB, *UCA PUGILATOR*, AND THE KILLIFISH, *FUNDULUS HETEROCLITUS*. *Oceans '87 Proc.* Vol. 4. p. 1456-1460. 1987. FR 33(2)
[Dep. Biol. Sci., Rutgers Univ., Newark, NJ 07102]

TOXICOLOGY; BIOASSAYS (CONTINUED)

88-002133 Wicklund, Anders; Per Runn and Leif Norrgren. CADMIUM AND ZINC INTERACTIONS IN FISH: EFFECTS OF ZINC ON THE UPTAKE, ORGAN DISTRIBUTION, AND ELIMINATION OF ^{109}Cd IN THE ZEBRAFISH, *BRACHYDANIO RERIO*. *Arch. Environ. Contam. Toxicol.* 17(3):345-354. 1988. FR 33(2)
[Dep. Zool., Uppsala Univ., Box 561, S-751 22 Uppsala, Sweden]

88-002134 Willford, Wayne A. PERSISTENT TOXIC SUBSTANCES AND THE HEALTH OF FISH COMMUNITIES IN THE GREAT LAKES. *In: Toxic Contaminants and Ecosystem Health: A Great Lakes Focus. Marlene S. Evans, editor.* p. 549-555. FR 33(2)
[U.S. Environ. Prot. Agency, Great Lakes Natl. Program, 230 S. Dearborn St., Chicago, IL 60604]

88-002135 Wren, Christopher D. and Pamela M. Stokes. DEPRESSED MERCURY LEVELS IN BIOTA FROM ACID AND METAL STRESSED LAKES NEAR SUDBURY, ONTARIO. *Ambio* 17(1):28-30. 1988. FR 33(2)
[B.A.R. Environ., 532 Queen St. East., Toronto, ON, Canada M5A 1V2] *Lepomis gibbosus* and *Perca flavescens*.

RESEARCH AND MANAGEMENT-GENERAL

88-002136 Amson, Jonathan E. THE RESPONSIBILITIES OF FEDERAL AGENCIES IN THE REGULATION OF ARTIFICIAL REEFS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 517-524. 1986. FR 33(2)
[U.S. Environ. Protection Agency, Washington, DC 20460]

88-002137 Anderson, Lee G. EXPANSION OF THE FISHERIES MANAGEMENT PARADIGM TO INCLUDE INSTITUTIONAL STRUCTURE AND FUNCTION. *Trans. Am. Fish. Soc.* 116(3):396-404. 1987. FR 33(2)
[Coll. Mar. Studies, Univ. Del., Newark 19716]

88-002138 Bedi, Nilam. PRICING OF RECREATIONAL FISHING ACCESS - A DISCUSSION OF MAJOR ISSUES, WITH SPECIAL REFERENCE TO ONTARIO. *Trans. Am. Fish. Soc.* 116(3):390-395. 1987. FR 33(2)
[Minist. Nat. Resour., Fish. Branch, 99 Wellesley St. W., Toronto, ON, Canada M7A 1W3]

88-002139 Branson, Jim H. REGIONAL FISHERY MANAGEMENT COUNCILS: A NEW FORM OF GOVERNMENT. *Coastal Manage.* 15(4):299-303. 1987. FR 33(2)
[North Pac. Fish. Manage. Council, Anchorage, AK]

88-002140 Cycon, Dean E. MANAGING FISHERIES IN DEVELOPING NATIONS: A PLEA FOR APPROPRIATE DEVELOPMENT. *Nat. Resour. J.* 26(1):1-14. 1986. FR 33(2)

88-002141 D'Itri, Frank M., editor. ARTIFICIAL REEFS: MARINE AND FRESHWATER APPLICATIONS. *Lewis Publ., Inc.* 589p. 1986. FR 33(2)
Selected chapters indexed in this issue of *Fisheries Review*.

88-002142 Fagan, Robert. LONG-TERM TRENDS IN MAXIMUM SIZE OF SPORT-CAUGHT CHINOOK SALMON (*ONCORHYNCHUS TSHAWYTSCHA*): A DATA-ANALYTIC APPROACH TO WEIGHTS OF FIRST-PRIZE FISH IN FOUR SOUTHEASTERN ALASKA SALMON DERBIES. *Fish. Res.* 6(2):125-134. 1988. FR 33(2)
[School Fish. & Sci., Univ. Alaska, 11120 Glacier Hwy., Juneau 99801]

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

88-002143 Fullerton, E. Charles. REGIONAL FISHERY MANAGEMENT COUNCILS: THE FEDERAL PERSPECTIVE. *Coastal Manage.* 15(4):305-308. 1987. FR 33(2)
[Natl. Mar. Fish. Serv., Terminal Island, CA]

88-002144 Gale, Richard P. SOCIAL ASSESSMENT FROM PINES TO PERCH: COMPARATIVE OBSERVATIONS OF FISHERIES AND FORESTRY. *Trans. Am. Fish. Soc.* 116(3):486-493. 1987. FR 33(2)
[Dep. Sociol., Univ. Oreg., Eugene 97403]

88-002145 Glass, Ronald J. and Robert M. Muth. PITFALLS AND LIMITATIONS IN THE USE OF FISHERY VALUATION TECHNIQUES. *Trans. Am. Fish. Soc.* 116(3):381-389. 1987. FR 33(2)
[U.S. For. Serv., Northeast. For. Exp. Stn., P.O. Box 968, Burlington, VT 05402]

88-002146 Goode, Bernie. REGULATING ARTIFICIAL REEFS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 525-527. 1986. FR 33(2)
[U.S. Army Corps Eng., Washington, DC 20314]

88-002147 Gregory, Robin. NONMONETARY MEASURES OF NONMARKET FISHERY RESOURCE BENEFITS. *Trans. Am. Fish. Soc.* 116(3):374-380. 1987. FR 33(2)
[Decision Res., 1201 Oak St., Eugene, OR 97401]

88-002148 Gulland, J. A. FISHERY MANAGEMENT AS AN INTEGRATED PROCESS WITH SPECIAL REFERENCE TO THE CONTROL OF FISHERY EFFORT. *Kuwait Bull. Mar. Sci.* 1987(9):3-13. 1987. In English with Arabic summ. FR 33(2)
[Mar. Resour. Assess. Group, Imperial Coll., London, England]

88-002149 Haywood, K. H. and C. T. W. Curr. PROJECT IDENTIFICATION IN SMALL PELAGIC FISHERIES: INDONESIA, INDIA, THAILAND, MOROCCO. *FAO Fish. Tech. Pap.* No. 289. 68p. 1987. FR 33(2)
[School Fish. Studies, Humberside Coll. Higher Educ., Queen's Gardens, Hull, England]

88-002150 Higgs, Eric S. CHANGING VALUE PERSPECTIVES IN NATURAL RESOURCE ALLOCATION: FROM MARKET TO ECOSYSTEM. *Trans. Am. Fish. Soc.* 116(3):525-531. 1987. FR 33(2)
[Dep. Environ. Resour. Studies, Univ. Waterloo, Waterloo, ON, Canada N2L 3G1]

88-002151 Larkin, Peter A. THE FUTURE OF FISHERIES MANAGEMENT: MANAGING THE FISHERMAN. *Fisheries (Bull. Am. Fish. Soc.)* 13(1):3-4, 6, 8-9. 1988. FR 33(2)
[Univ. British Columbia, Inst. Anim. Resour. Ecol., 2204 Main Mall, Vancouver, BC, Canada V6T 1W5]

88-002152 Leefers, Larry A.; Frederick L. Norbury and H. Fred Kaiser, Jr. MULTIPLE-USE RESOURCE ECONOMICS: THEORY AND PLANNING APPLICATIONS. *Trans. Am. Fish. Soc.* 116(3):367-373. 1987. FR 33(2)
[Dep. For., Mich. State Univ., East Lansing 48824]

88-002153 Loftus, K. H. INADEQUATE SCIENCE TRANSFER: AN ISSUE BASIC TO EFFECTIVE FISHERIES MANAGEMENT. *Trans. Am. Fish. Soc.* 116(3):314-319. 1987. FR 33(2)
[130 Arnold Crescent, Richmond Hill, ON, Canada L4C 3R8]

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

88-002154 Matlock, Gary C.; Gary E. Saul and C. E. Bryan. IMPORTANCE OF FISH CONSUMPTION TO SPORT FISHERMEN. *Fisheries (Bull. Am. Fish. Soc.)* 13(1):25-26. 1988. FR 33(2)
[Parks & Wildl. Dep., 4200 Smith School Rd., Austin, TX 78744]

88-002155 McDonough, Maureen H.; Marci Cobb and Donald F. Holecek. ROLE OF COMMUNICATION SCIENCE IN SOCIAL VALUATION OF FISHERIES. *Trans. Am. Fish. Soc.* 116(3):519-524. 1987. FR 33(2)
[Dep. Park & Recreation Resour., Mich. State Univ., East Lansing 48910]

88-002156 Miller, Marc L. REGIONAL FISHERY MANAGEMENT COUNCILS AND THE DISPLAY OF SCIENTIFIC AUTHORITY. *Coastal Manage.* 15(4):309-318. 1987. FR 33(2)
[Inst. Mar. Studies, College Ocean & Fish. Sci., Univ. Wash., Seattle]

88-002157 Muth, Robert M.; David E. Ruppert and Ronald J. Glass. SUBSISTENCE USE OF FISHERIES RESOURCES IN ALASKA: IMPLICATIONS FOR GREAT LAKES FISHERIES MANAGEMENT. *Trans. Am. Fish. Soc.* 116(3):510-518. 1987. FR 33(2)
[U.S. For. Serv., Alaska Region. Office, P.O. Box 21628, Juneau 99802]

88-002158 Radonski, Gilbert C.; Robert G. Martin and William P. DuBose, IV. ARTIFICIAL REEFS: THE SPORT FISHING PERSPECTIVE. *In: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 529-536. 1986. FR 33(2)
[Sport Fish. Inst., Washington, DC 20005]

88-002159 Stone, Richard B. HISTORY OF ARTIFICIAL REEF USE IN THE UNITED STATES. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 3-11. 1986. FR 33(2)
[Natl. Mar. Fish. Serv., Washington, DC 20235]

88-002160 Stynes, Daniel J. and Dennis M. Donnelly. SIMPLIFYING THE TRAVEL COST METHOD. *Trans. Am. Fish. Soc.* 116(3):432-440. 1987. FR 33(2)
[Dep. Park & Recreation Resour., Mich. State Univ., East Lansing 48824]

88-002161 Talhelm, Daniel R.; J. Edward Hanna and Peter Victor. PRODUCT TRAVEL COST APPROACH: ESTIMATING ACID RAIN DAMAGE TO SPORTFISHING IN ONTARIO. *Trans. Am. Fish. Soc.* 116(3):420-431. 1987. FR 33(2)
[Dep. Park & Recreation Resour., Mich. State Univ., East Lansing 48824]

88-002162 Talhelm, Daniel R. and Lawrence W. Libby. IN SEARCH OF A TOTAL VALUE ASSESSMENT FRAMEWORK: SAFR SYMPOSIUM OVERVIEW AND SYNTHESIS. *Trans. Am. Fish. Soc.* 116(3):293-301. 1987. FR 33(2)
[Dep. Park & Recreation Resour., Mich. State Univ., East Lansing 48824]

88-002163 Vanderpool, Christopher K. SOCIAL ACTION, TOTAL ECONOMIC VALUE, AND ENVIRONMENTAL POLICY. THE PROBLEM OF RATIONALITY. *Trans. Am. Fish. Soc.* 116(3):336-338. 1987. FR 33(2)
[Dep. Sociol., Mich. State Univ., East Lansing 48824]

88-002164 Wiley, Michael J.; Pamela P. Tazik and Stephen T. Sobaski. CONTROLLING AQUATIC VEGETATION WITH TRIPLOID GRASS CARP. *Ill. Nat. Hist. Surv. Circ.* No. 57. 17p. 1987. FR 33(2)
[Sect. Aquat. Biol., Ill. Nat. Hist. Surv., Nat. Resour. Bldg., 607 E. Peabody Dr., Champaign 61820] *Ctenopharyngodon idella.*

RESEARCH AND MANAGEMENT-GENERAL (CONTINUED)

88-002165 Yarbrough, C. Jarrell. USING POLITICAL THEORY IN FISHERY MANAGEMENT. *Trans. Am. Fish. Soc.* 116(3):532-536. 1987. FR 33(2)
[Coll. Community Sci., Univ. Wis:, Green Bay 54301]

ADMINISTRATION AND PLANNING

88-002166 Pacific Fishery Management Council. PRESEASON REPORT 1. STOCK ABUNDANCE ANALYSIS FOR 1988 OCEAN SALMON FISHERIES. *Pac. Fish. Manage. Council* 57p. 1988. FR 33(2)
[Pac. Fish. Manage. Council, Metro Cent., Suite 420, 2000 S.W. First Ave., Portland, OR 97201] *Oncorhynchus tshawytscha* and *O. kisutch*.

88-002167 Smith, T. P. SCIENCE AND POLITICS IN ALASKA FISHERIES MANAGEMENT: A FEDERAL PERSPECTIVE. *Alaska Sci. Conf.* 38:116. 1987. Abstract only. FR 33(2)
[North Pac. Fish. Manage. Council, Anchorage, AK]

HABITAT ALTERATIONS

88-002168 Buckley, Raymond M. HABITAT ENHANCEMENT AND URBAN RECREATIONAL FISHING. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 365-382. 1986. FR 33(2)
[Mar. Fish Program, Dep. Fish., Olympia, WA 98504]

88-002169 Carter, Stephen R.; Kenneth R. Bazata and Darell L. Andersen. MACROINVERTEBRATE COMMUNITIES OF THE CHANNELIZED MISSOURI RIVER NEAR TWO NUCLEAR POWER STATIONS. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 147-182. 1982. FR 33(2)
[Environ. Sci. & Eng. Inc., 11665 Lilburne Park, St. Louis, MO 63141]

88-002170 David, Martin H.; Erhard F. Joeres; Eric D. Loucks; Kenneth W. Potter and Stuart S. Rosenthal. EFFECTS OF DIVERSIONS ON THE NORTH AMERICAN GREAT LAKES. *Water Resour. Bull.* 24(1):141-148. 1988. FR 33(2)
[Rm. 6440, Social Sci. Bldg., Univ. Wis., Madison 53706]

88-002171 Farrell, James R. and Mary A. Tesar. PERIPHYTIC ALGAE IN THE CHANNELIZED MISSOURI RIVER WITH SPECIAL EMPHASIS ON APPARENT OPTIMAL TEMPERATURES. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 85-123. 1982. FR 33(2)
[Hercules, Inc., 6803 West 64th St., Suite 100, Shawnee Mission, KS 66202]

88-002172 Morgensen, Sue A. CENTRAL ARIZONA PROJECT IMPACTS ON THE LAKE PLEASANT FISHERY. *J. Ariz.-Nev. Acad. Sci.* 23:20. 1988. Abstract only. FR 33(2)
[Game & Fish Dep., Phoenix, AZ]

88-002173 Reetz, Steven D. PHYTOPLANKTON STUDIES IN THE MISSOURI RIVER AT FORT CALHOUN STATION AND COOPER NUCLEAR STATION. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 71-83. 1982. FR 33(2)
[Ecol. Analysts, Inc., 221 Oakcreek Dr., Lincoln, NE 68528]

88-002174 Repsys, Andrew J. and Gary D. Rogers. ZOOPLANKTON STUDIES IN THE CHANNELIZED MISSOURI RIVER. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B.*

HABITAT ALTERATIONS (CONTINUED)

88-002174 CONTINUED *Schlesinger, editors*. p. 125-145. 1982. FR 33(2)
[Ecol. Analysts, Inc., 221 Oakcreek Dr., Lincoln, NE 68528]

88-002175 Townsend, C. R. and G. Peirson. FISH COMMUNITY STRUCTURE IN LOWLAND DRAINAGE CHANNELS. *J. Fish Biol.* 32(2):283-295. 1988. FR 33(2)
[School Biol. Sci., Univ. East Anglia, Norwich NR4 7TJ, England]

HARVEST, CREEL CENSUS, ETC.

88-002176 Ahrenholz, Dean W.; Walter R. Nelson and Sheryan P. Epperly. POPULATION AND FISHERY CHARACTERISTICS OF ATLANTIC MENHADEN, *BREVOORTIA TYRANNUS*. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):569-600. 1987. FR 33(2)
[Southeast Fish. Cent., Beaufort Lab., NMFS, NOAA, Beaufort, NC 28516]

88-002177 Congdon, James C. ANGLER USE AND HARVEST ON FOX LAKE, WISCONSIN. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 133. 20p. 1988. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI]

88-002178 Fabrizio, Mary C. CONTRIBUTION OF CHESAPEAKE BAY AND HUDSON RIVER STOCKS OF STRIPED BASS TO RHODE ISLAND COASTAL WATERS AS ESTIMATED BY ISOELECTRIC FOCUSING OF EYE LENS PROTEINS. *Trans. Am. Fish. Soc.* 116(4):588-593. 1987. FR 33(2)
[Inst. Fish. Res., 212 Mus. Annex Bldg., Ann Arbor, MI 48109] *Morone saxatilis*

88-002179 Folke, Carl. THE BALTIC SALMON: ECOLOGICAL AND ECONOMIC EVALUATION OF A NATURAL RESOURCE. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 36-46. 1986. FR 33(2)
[Asko Lab. & Dep. Zool., Univ. Stockholm, S-106 91 Stockholm, Sweden] *Salmonidae*.

88-002180 Heizer, Russell E. SUMMER CREEL SURVEY OF COSGROVE AND ELWOOD LAKES, FLORENCE COUNTY, WISCONSIN, 1979. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 130. 23p. 1986. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI]

88-002181 Myers, Katherine W.; Colin K. Harris; Curtis M. Knudsen; Robert V. Walker; Nancy D. Davis and Donald E. Rogers. STOCK ORIGINS OF CHINOOK SALMON IN THE AREA OF THE JAPANESE MOTHERSHIP SALMON FISHERY. *N. Am. J. Fish. Manage.* 7(4):459-474. 1987. FR 33(2)
[Fish. Res. Inst., School Fish., WH-10 Univ. Wash., Seattle 98195] *Oncorhynchus tshawytscha*.

88-002182 Phippen, Kenneth W. and Eric P. Bergersen. ANGLING DEFINITIONS AND THEIR EFFECTS ON THE ACCURACY OF COUNT-INTERVIEW CREEL SURVEY HARVEST ESTIMATES. *N. Am. J. Fish. Manage.* 7(4):488-492. 1987. FR 33(2)
[Game & Fresh Water Fish Comm., P.O. Box 1903, Eustis, FL 32727]

88-002183 Reisenbichler, Reginald R. BASIS FOR MANAGING THE HARVEST OF CHINOOK SALMON. *N. Am. J. Fish. Manage.* 7(4):589-591. 1987. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. Cent., Bldg. 204, Naval Station, Seattle, WA 98115] *Oncorhynchus tshawytscha*

HARVEST, CREEL CENSUS, ETC. (CONTINUED)

88-002184 Schumacher, E. Randy. CREEL SURVEY ON PEWAUKEE AND NAGAWICKA LAKES, WAUKESHA COUNTY, SUMMER 1982. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 131. 34p. 1987. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI]

FISH CONTROL AND REMOVAL

88-002185 McKay, Edward H. PORTABLE, SELF-CLEANING FISH SCREEN FOR LOW-FLOW WATER DIVERSIONS. *N. Am. J. Fish. Manage.* 7(4):603-605. 1987. FR 33(2)
[U.S. Bur. Indian Affairs, Box A, Pablo, MT 59855]

88-002186 Skinner, William. ERADICATION OF BLUE TILAPIA (*OREOCHROMIS AUREUS*), AN EXOTIC FISH SPECIES, FROM THE LOWER SUSQUEHANNA RIVER. *Proc. Pa. Acad. Sci.* 61(1):95-96. 1987. Abstract only. FR 33(2)
[Power & Light Co., Allentown, PA 18103]

88-002187 Zale, Alexander V. PERIODICITY OF HABITATION OF A STENOTHERMAL SPRING RUN IN NORTH-CENTRAL FLORIDA BY BLUE TILAPIA. *N. Am. J. Fish. Manage.* 7(4):575-579. 1987. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, Dep. Zool., Okla. State Univ., Stillwater 74078] *Tilapia aurea.*

MARKING AND TAGGING

88-002188 Behrens Yamada, S. and T. J. Mulligan. MARKING NONFEEDING SALMONID FRY WITH DISSOLVED STRONTIUM. *Can. J. Fish. Aquat. Sci.* 44(8):1502-1506. 1987. In English with French summ. FR 33(2)
[Zool. Dep., Oreg. State Univ., Corvallis 97331] *Salmo gairdneri, Oncorhynchus gorbuscha, O. keta, O. nerka, O. kisutch,* and *O. tshawytscha.*

88-002189 Dunning, Dennis J.; Quentin E. Ross; John R. Waldman and Mark T. Mattson. TAG RETENTION BY, AND TAGGING MORTALITY OF, HUDSON RIVER STRIPED BASS. *N. Am. J. Fish. Manage.* 7(4):535-538. 1987. FR 33(2)
[N.Y. Power Authority, 123 Main St., White Plains, 10601] *Morone saxatilis* in New York.

88-002190 Foreman, Terry. A METHOD OF SIMULTANEOUSLY TAGGING LARGE OCEANIC FISH AND INJECTING THEM WITH TETRACYCLINE. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(3):645-647. 1987. FR 33(2)
[Inter-Am. Trop. Tuna Comm., Scripps Inst. Oceanogr., La Jolla, CA 92093] *Thunnus albacares* and *Acanthocybium solandri.*

88-002191 Gajdusek, Josef; Aleksandr G. Gusar; Dimitrij S. Pavlov; Karel Halacka and Stanislav I. Sarancov. ON THE METHODS OF ULTRASONIC TELEMETRY OF FISH MIGRATION IN SMALL RIVERS. *Folia Zool.* 36(2):155-160. 1987. In English with Russian summ. FR 33(2)
[Inst. Syst. & Ecol. Biol., CSAV, Kvetna, 8, 603 65 Brno, Czechoslovakia] Salmonidae.

88-002192 Wilson, Charles A.; Daniel W. Beckman and John Mark Dean. CALCEIN AS A FLUORESCENT MARKER OF OTOLITHS OF LARVAL AND JUVENILE FISH. *Trans. Am. Fish. Soc.* 116(4):668-670. 1987. FR 33(2)
[Coastal Fish Inst., Cent. Wetland Resour., La. State Univ., Baton Rouge 70803] *Sciaenops ocellatus, Micropogonias undulatus,* and *Leiostomus xanthurus.*

STOCKING AND INTRODUCTIONS

88-002193 Carney, Heath Joseph. PHYTOPLANKTON DYNAMI' , IN LARGE TEMPERATE AND TROPICAL LAKES: TWO CASE STUDIES. *Ph.D. dissertation, Univ. Calif. (Davis)* 148p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2190. 1988. FR 33(2)

88-002194 Hikita, T. [INTRODUCTION OF FISH IN HOKKAIDO.] *Tech. Rep. Hokkaido Salmon Hatchery* No. 156. p. 36. 1986. In Japanese. FR 33(2)

88-002195 Maceina, Michael John. EVALUATION OF FLORIDA LARGEMOUTH BASS INTRODUCTIONS INTO A NEW TEXAS RESERVOIR: FACTORS REGULATING STOCKING SUCCESS AND INTROGRESSION. *Ph.D. dissertation, Tex. A&M Univ.* 120p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(6):1562. 1987. FR 33(2)
Micropterus salmoides floridanus.

FISHING GEAR AND TECHNIQUES

88-002196 Averill, Philip H. and H. Arnold Carr. USE OF SQUARE MESH IN NEW ENGLAND'S GROUNDFISHERY. *Oceans '87 Proc.* Vol. 2. p. 649-651. 1987. FR 33(2)
[Dep. Mar. Resour., State House, Augusta, ME 04333]

88-002197 Byrne, Charles J. and J. R. S. Forrester. EFFECT OF A GEAR CHANGE ON A STANDARDIZED BOTTOM TRAWL SURVEY TIME SERIES. *Oceans '87 Proc.* Vol. 2. p. 614-621. 1987. FR 33(2)
[Natl. Mar. Fish. Serv., Northeast Fish. Cent., Woods Hole, MA 02543]

88-002198 Carr, H. Arnold and Richard A. Cooper. MANNED SUBMERSIBLE AND ROV ASSESSMENT OF GHOST GILLNETS IN THE GULF OF MAINE. *Oceans '87 Proc.* Vol. 2. p. 622-624. 1987. FR 33(2)
[Div. Mar. Fish., 18 Rt. 6A, Sandwich, MA]

88-002199 Chadwick, James W.; Mark F. Cook and David S. Winters. VERTICAL GILL NET FOR STUDYING DEPTH DISTRIBUTION OF FISH IN SMALL LAKES. *N. Am. J. Fish. Manage.* 7(4):593-594. 1987. FR 33(2)
[Chadwick & Assoc. Inc., 5721 S. Spotswood St., Littleton, CO 80120]

88-002200 Cooper, C. G. and W. M. Hickey. SELECTIVITY EXPERIMENTS WITH SQUARE MESH COD-ENDS ON HADDOCK AND COD. *Oceans '87 Proc.* Vol. 2. p. 608-613. 1987. FR 33(2)
[Dep. Fish. & Oceans, Fish. Dev. Branch, P.O. Box 550, Halifax, NS, Canada B3J 2S7]
Melanogrammus aeglefinus and *Gadus morhua.*

88-002201 Fletcher, Douglas H. HOOKING MORTALITY OF WALLEYES CAPTURED IN PORCUPINE BAY, WASHINGTON. *N. Am. J. Fish. Manage.* 7(4):594-596. 1987. FR 33(2)
[Dep. Game, 2802 Fruitvale Blvd., Yakima, WA 98902] *Stizostedion vitreum*

88-002202 Gotshall, Daniel W. THE USE OF BAITED STATIONS BY DIVERS TO OBTAIN FISH RELATIVE ABUNDANCE DATA. *Calif. Fish Game* 73(4):214-229. 1987. FR 33(2)
[Dep. Fish & Game, Mar. Resour. Div., 2201 Garden Rd., Monterey, CA 93940]

FISHING GEAR AND TECHNIQUES (CONTINUED)

88-002203 James, Paul W.; Stuart C. Leon; Alexander V. Zale and O. Eugene Maughan. DIVER-OPERATED ELECTROFISHING DEVICE. *N. Am. J. Fish. Manage.* 7(4):597-598. 1987. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, Dep. Zool., Okla. State Univ., Stillwater 74078]

88-002204 Kanehiro, Haruyuki and Wu. Houng-jew. [WATER ABSORPTION AND RELEASE PROCESS OF NYLON AND POLYESTER NETTING TWINES.] *Nippon Suisan Gakkaishi* 53(12):2139-2144. 1987. In Japanese with English summ. FR 33(2)
[Tokyo Univ. Fish., Konan-4, Minato, Tokyo 108, Japan]

88-002205 Marchesseault, Guy. GEAR TECHNOLOGY NEEDS FOR FISHERY MANAGEMENT. *Oceans '87 Proc.* Vol. 2. p. 625. 1987. Abstract only. FR 33(2)
[New England Fish. Manage. Council, 5 Broadway, Suntaug Bldg., Saugus, MA]

88-002206 Mathews, C. P.; V. R. Gouda; Wafa T. Riad and J. Dashti. PILOT STUDY FOR THE DESIGN OF A LONG LIFE FISH TRAP (GARGOOR) FOR KUWAIT'S FISHERIES. *Kuwait Bull. Mar. Sci.* 1987(9):221-234. 1987. In English with Arabic summ. FR 33(2)
[Maricult. & Fish. Dep., Food Resour. Div., Kuwait Inst. Sci. Res., Kuwait]

88-002207 Matuda, K. HEADLINE HEIGHT OF BOTTOM GILL NETS SET ACROSS A WATER FLOW. *Fish. Res.* 6(2):167-179. 1988. FR 33(2)
[Tokyo Univ. Fish., 4-5-7 Konan, Minatoka, Tokyo 108, Japan]

88-002208 Stewart, P. A. M. MEASUREMENTS OF THE EFFECTS OF TIDAL FLOW ON THE HEADLINE HEIGHTS OF BOTTOM-SET GILLNETS. *Fish. Res.* 6(2):181-189. 1988. FR 33(2)
[DAFS, Mar. Lab., P.O. Box 101, Victoria Rd., Aberdeen, Scotland]

88-002209 Willis, David W. USE OF GILL-NET DATA TO PROVIDE A RECRUITMENT INDEX FOR WALLEYES. *N. Am. J. Fish. Manage.* 7(4):591-592. 1987. FR 33(2)
[S.D. State Univ., Box 2206, Brookings 57007] *Stizostedion vitreum*

FISHWAYS, FISH PASSAGE THROUGH DAMS, ETC.

88-002210 Nettles, D. C. and S. P. Gloss. MIGRATION OF LANDLOCKED ATLANTIC SALMON SMOLTS AND EFFECTIVENESS OF A FISH BYPASS STRUCTURE AT A SMALL-SCALE HYDROELECTRIC FACILITY. *N. Am. J. Fish. Manage.* 7(4):562-568. 1987. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, Dep. Nat. Resour., Cornell Univ., Ithaca, NY 14853] *Salmo salar* in New York.

MATHEMATICS, STATISTICAL METHODS, AND MODELING

88-002211 Bain, Mark B. STRUCTURED DECISION MAKING IN FISHERIES MANAGEMENT: TROUT FISHING REGULATIONS ON THE AU SABLE RIVER, MICHIGAN. *N. Am. J. Fish. Manage.* 7(4):475-481. 1987. FR 33(2)
[Coop. Fish & Wildl. Res. Unit, Auburn Univ., Auburn, AL 36849] *Salmo trutta.*

88-002212 Berman, Carl R., Jr. USING COMPUTER MODELING TO EVALUATE FIXED VS. RANDOM GRID SAMPLING FOR FISHERIES RESOURCE ASSESSMENT. *Oceans '87 Proc.* Vol. 3. p. 967-969. 1987. FR 33(2)

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

88-002213 Bohlin, Torgny; Claes Dellefors and Ulo Faremo. EARLY SEXUAL MATURATION OF MALE SEA TROUT AND SALMON - AN EVOLUTIONARY MODEL AND SOME PRACTICAL IMPLICATIONS. *Inst. Freshwater Res. Drottningholm Rep.* No. 63. p. 17-25. 1986. FR 33(2)
[Dep. Zool., Univ. Gothenburg, P.O. Box 250 59, S-400 31 Gothenburg, Sweden] *Salmo trutta* and *Salmonidae*.

88-002214 Borisovets, E. E.; Yu. Yu. Dgebuadze and V. Ya. Ermokhin. [THE USE OF MATHEMATICAL METHODS TO IDENTIFY FORMS OF ALTAI *OREOLEUCISCUS* (PISCES, CYPRINIDAE).] *Zool. Zh.* 66(12):1850-1863. 1987. In Russian with English summ. FR 33(2)
[Pac. Res. Inst. Geogr., Far East Sci. Cent., USSR Acad. Sci., Vladivostok, USSR]

88-002215 Breck, James E.; Donald L. DeAngelis; Webb Van Winkle and Sigurd W. Christensen. POTENTIAL IMPORTANCE OF SPATIAL AND TEMPORAL HETEROGENEITY IN pH, Al, AND Ca IN ALLOWING SURVIVAL OF A FISH POPULATION: A MODEL DEMONSTRATION. *Ecol. Model.* 41(1/2):1-16. 1988. FR 33(2)
[Environ. Sci. Div., Oak Ridge Natl. Lab., Oak Ridge, TN 37831]

88-002216 Breck, James E. and Steven M. Bartell. APPROACHES TO MODELING THE FATE AND EFFECTS OF TOXICANTS IN PELAGIC SYSTEMS. *In: Toxic Contaminants and Ecosystem Health: A Great Lakes Focus. Marlene S. Evans, editor.* p. 427-446. 1988. FR 33(2)
[Environ. Sci. Div., Oak Ridge Natl. Lab., Oak Ridge, TN 37831]

88-002217 Bulger, A. J. A CRITICAL RE-EVALUATION OF THE ARTENMINIMUM PARADIGM IN ESTUARINE FISH DISTRIBUTIONS. *Am. Zool.* 27(4):160A. 1987. Abstract only. FR 33(2)
[Univ. Va., Charlottesville]

88-002218 Campos, Jorge and Albert Bornemisza. [AMULPES 1: A PACKAGE FOR THE AUTOMATIC ANALYSIS OF FISH DATA.] *Rev. Biol. Trop.* 33(1):75-76. 1985. In Spanish with English summ. FR 33(2)
[Escuela Biol. & Cent. Invest. Cienc. Mar Limnol. (CIMAR), Univ. Costa Rica, San Jose, Costa Rica]

88-002219 Chaudhuri, Kripasindhu. DYNAMIC OPTIMIZATION OF COMBINED HARVESTING OF A TWO-SPECIES FISHERY. *Ecol. Model.* 41(1/2):17-25. 1988. FR 33(2)
[Dep. Math., Jadavpur Univ., Calcutta-700 032, India]

88-002220 Chevalier, Robert. [SAMPLING OF COMMERCIAL LANDINGS FOR ESTIMATION OF THE AGE STRUCTURES. SOURCES OF VARIABILITY AND OPTIMIZATION OF SAMPLING DESIGN.] *Rev. Trav. Inst. Peches Marit.* 49(3/4):95-110. 1987. In French with English summ. FR 33(2)
[IFREMER, B.P. 1049, 44037 Nantes Cedex 01, France]

88-002221 Cole, Richard; Timothy Ward; Frank Ward and Robert Deitner. A SIMULATION MODEL FOR MANAGING FISHERIES IN RESERVOIRS ON THE RIO GRANDE OF NEW MEXICO. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 18-27. 1986. FR 33(2)
[Dep. Fish. & Wildl. Sci., N.M. State Univ., Las Cruces 88003]

88-002222 Colvin, Michael A. and Fred W. Vasey. A METHOD OF QUALITATIVELY ASSESSING WHITE CRAPPIE POPULATIONS IN MISSOURI RESERVOIRS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J.*

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

88-002222 CONTINUED *Van Den Avyle, editors.* p. 79-85. 1986. FR 33(2)
[Dep. Conserv., Fish Wildl. Res. Cent., 1110 College Ave., Columbia, MO 65201] *Pomoxis annularis.*

88-002223 Cook, Mark F. and R. Charles Solomon. HABITAT SUITABILITY INDEX MODELS: MUSKELLUNGE. *U.S. Fish Wildl. Serv. Biol. Rep.* 82(10.148):33p. 1987. Available from U.S. Fish & Wildl. Serv., Natl. Ecol. Res. Cent., 2627 Redwing Rd., Creekside One, Fort Collins, CO 80526-2899. FR 33(2)
[Chadwick & Assoc., 5721 A. Spotswood St., Littleton, CO 80120]

88-002224 Cross, Melvin L. THE IMPACT OF A SYSTEM OF BINDING QUOTAS ON THE OPTIMIZATION BEHAVIOR OF A FISHING FIRM. *Oceans '87 Proc.* Vol. 3. p. 950-955. 1987. FR 33(2)
[Dalhousie Univ., Halifax, NS, Canada B3H 3J5]

88-002225 Dabrowski, K.; F. Takashima and Y. K. Law. BIOENERGETIC MODEL OF PLANKTIVOROUS FISH FEEDING, GROWTH AND METABOLISM: THEORETICAL OPTIMUM SWIMMING SPEED OF FISH LARVAE. *J. Fish Biol.* 32(3):443-453. 1988. FR 33(2)
[Inst. Zool. Univ. Innsbruck, Abteilung Zoophysiol., Technikerstr. 25, A-6020, Innsbruck, Austria]

88-002226 Dehring, Terrence R. and Charles C. Krueger. A SIMULATION MODEL FOR LAKE TROUT STOCKING AND CATCH IN THE WISCONSIN WATERS OF LAKE MICHIGAN. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 129. 31p. 1986. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI] *Salvelinus namaycush.*

88-002227 Diana, James S. SIMULATION OF MECHANISMS CAUSING STUNTING IN NORTHERN PIKE POPULATIONS. *Trans. Am. Fish. Soc.* 116(4):612-617. 1987. FR 33(2)
[School Nat. Resour. & Great Lakes Res. Div., Univ. Mich., Ann Arbor 48109] *Esox lucius.*

88-002228 Doerzbacher, J. F.; A. W. Green; G. C. Matlock and H. R. Osburn. A TEMPERATURE COMPENSATED VON BERTALANFFY GROWTH MODEL FOR TAGGED RED DRUM AND BLACK DRUM IN TEXAS BAYS. *Fish. Res.* 6(2):135-152. 1988. FR 33(2)
[Parks & Wildl. Dep., Coastal Fish. Branch, 4200 Smith School Rd., Austin, TX 78744] *Sciaenops ocellatus* and *Pogonias cromis.*

88-002229 Duffy, David Cameron and Christian Wissel. MODELS OF FISH SCHOOL SIZE IN RELATION TO ENVIRONMENTAL PRODUCTIVITY. *Ecol. Model.* 40(3/4):201-211. 1988. FR 33(2)
[School Environ. Sci., Univ. Nacional, Heredia, San Jose, Costa Rica]

88-002230 Harper, D. G. and R. W. Blake. ENERGETICS OF PISCIVOROUS PREDATOR-PREY INTERACTIONS. *Am. Zool.* 27(4):124A. 1987. Abstract only. FR 33(2)
[Univ. British Columbia, Vancouver, BC, Canada]

88-002231 Hoehn, John P. CONTIGENT VALUATION IN FISHERIES MANAGEMENT: THE DESIGN OF SATISFACTORY CONTINGENT VALUATION FORMATS. *Trans. Am. Fish. Soc.* 116(3):412-419. 1987. FR 33(2)
[Dep. Agric. Econ., Mich. State Univ., East Lansing 48824]

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

88-002232 Hushak, Leroy J. USE OF INPUT-OUTPUT ANALYSIS IN FISHERIES ASSESSMENT. *Trans. Am. Fish. Soc.* 116(3):441-449. 1987. FR 33(2)
[Dep. Agric. Econ. & Rural Sociol., Ohio State Univ., Columbus 43210]

88-002233 Jahn, Andrew E. and Paul E. Smith. EFFECTS OF SAMPLE SIZE AND CONTAGION ON ESTIMATING FISH EGG ABUNDANCE. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:171-177. 1987. In English with Spanish summ. FR 33(2)
[Los Angeles Cty. Mus. Nat. Hist., 900 Exposition Blvd., Los Angeles, CA 90007] *Engraulis mordax.*

88-002234 Kleiber, P. and B. Baker. ASSESSMENT OF INTERACTION BETWEEN NORTH PACIFIC ALBACORE, *THUNNUS ALALUNGA*, FISHERIES BY USE OF A SIMULATIION MODEL. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):703-711. 1987. FR 33(2)
[Southwest Fish. Cent. La Jolla Lab., NMFS, NOAA, P.O. Box 271, La Jolla, CA 92038]

88-002235 Lagler, Karl F. PREDICTIVE STOCK AND CATCH ASSESSMENT FOR DECISION-MAKING IN THE MANAGEMENT OF TROPICAL SMALL-SCALE FISHERIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 70-73. 1979. FR 33(2)

88-002236 Ledbetter, David Maxwell. COMPETITION AND INFORMATION AMONG BRITISH COLUMBIA SALMON PURSE SEINERS. *Ph.D. dissertation, Univ. British Columbia (Canada)* 1986. From Diss. Abstr. Int. B Sci. Eng. 48(9):2575. 1988 FR 33(2)

88-002237 Martin, Larry R. G. ECONOMIC IMPACT ANALYSIS OF A SPORT FISHERY ON LAKE ONTARIO: AN APPRAISAL OF METHOD. *Trans. Am. Fish. Soc.* 116(3):461-468. 1987. FR 33(2)
[School Urban & Regional Planning, Univ. Waterloo, Waterloo, ON, Canada N2L 3G1]

88-002238 Munro, John L. STOCK ASSESSMENT MODELS: APPLICABILITY AND UTILITY IN TROPICAL SMALL-SCALE FISHERIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 35-47. 1979. FR 33(2)

88-002239 Peckarsky, Barbara L. BIOTIC INTERACTIONS OR ABIOTIC LIMITATIONS? A MODEL OF LOTIC COMMUNITY STRUCTURE. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 303-323. 1983. FR 33(2)
[Entomol. Dep., Cornell Univ., Ithaca, NY]

88-002240 Pequeno R., German and Eduardo D'Ottone D. [TAXONOMIC DIFFERENTIATION OF COMMON FLOUNDERS FROM VALDIVIA, CHILE (OSTEICHTHYES, BOTHIDAE).] *Rev. Biol. Mar.* 23(1):107-137. 1987. In Spanish with English summ. FR 33(2)
[Inst. Zool., Univ. Austral Chile, Casilla 567, Valdivia, Chile]

88-002241 Piedrahita, R. H. INTRODUCTION TO COMPUTER MODELLING OF AQUACULTURE POND ECOSYSTEMS. *Aquacult. Fish. Manage.* 19(1):1-12. 1988. FR 33(2)
[Dep. Agric. Eng., Univ. Calif., Davis 95616]

88-002242 Ploskey, Gene R. EFFECTS OF WATER-LEVEL CHANGES ON RESERVOIR ECOSYSTEMS, WITH IMPLICATIONS FOR FISHERIES MANAGEMENT. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J.*

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

88-002242 CONTINUED *Van Den Avyle, editors.* p. 86-97. 1986. FR 33(2)
[Aquat. Ecosyst. Analysts, P.O. Box 4188, Fayetteville, AR 72702]

88-002243 Propst, Dennis B. and Dimitris G. Gavrilis. ROLE OF ECONOMIC IMPACT ASSESSMENT PROCEDURES IN RECREATIONAL FISHERIES MANAGEMENT. *Trans. Am. Fish. Soc.* 116(3):450-460. 1987. FR 33(2)
[Dep. Park Recreation Resour., Mich. State Univ., East Lansing 48824]

88-002244 Randall, Alan. TOTAL ECONOMIC VALUE AS A BASIS FOR POLICY. *Trans. Am. Fish. Soc.* 116(3):325-335. 1987. FR 33(2)
[Dep. Agric. Econ. & Rural Sociol., Ohio State Univ., Columbus 43210]

88-002245 Reckhow, Kenneth H.; Robert W. Black; Thomas B. Stockton, Jr.; J. David Vogt and Judith G. Wood. EMPIRICAL MODELS OF FISH RESPONSE TO LAKE ACIDIFICATION. *Can. J. Fish. Aquat. Sci.* 44(8):1432-1442. 1987. In English with French summ. FR 33(2)
[School For. & Environ. Studies, Duke Univ., Durham, NC 27706] *Salvelinus fontinalis, S. namaycush, Catastomus commersoni,* and *Perca flavescens.*

88-002246 Rettig, R. Bruce. BIOECONOMIC MODELS: DO THEY REALLY HELP FISHERY MANAGERS? *Trans. Am. Fish. Soc.* 116(3):405-411. 1987. FR 33(2)
[Dep. Agric. Resour. Econ., Oreg. State Univ., Corvallis 97331]

88-002247 Rice, Jake C. and Geoffry T. Evans. PROJECTING YEAR-CLASS STRENGTH WITHOUT THE MEDIATION OF A FUNCTIONAL RELATION. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 65. 1987. In English. FR 33(2)
[Fish. Res. Branch, Dep. Fish. & Oceans, P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

88-002248 Saila, Saul B. A TENTATIVE STRUCTURAL MODELING APPROACH TO SOME ASPECTS OF SMALL-SCALE FISHERIES MANAGEMENT. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 183-190. 1979. FR 33(2)

88-002249 Saila, Saul B. and Karim Erzini. EMPIRICAL APPROACH TO MULTISPECIES STOCK ASSESSMENT. *Trans. Am. Fish. Soc.* 116(4):601-611. 1987. FR 33(2)
[Grad. School Oceanogr., Univ. R.I., Narragansett 02882]

88-002250 Sanders, M. J. MEAN POPULATION NUMBER AND THE DE LURY AND LESLIE METHODS. *Fish. Res.* 6(2):153-165. 1988. FR 33(2)
[FAO Fish. Project (RAF/79/065), P.O. Box 487, Seychelles Islands]

88-002251 Sannomiya, Nobuo and Ko Matuda. LEAST SQUARES PARAMETER ESTIMATION IN FISH BEHAVIOR MODEL. *Nippon Suisan Gakkaishi* 53(11):1951-1957. 1987. In English. FR 33(2)
[Dep. Electron., Kyoto Inst. Technol., Sakyo, Kyoto 606, Japan]

88-002252 Sparre, P. COMPUTER PROGRAMS FOR FISH STOCK ASSESSMENT. LENGTH-BASED FISH STOCK ASSESSMENT FOR APPLE II COMPUTERS. *FAO Fish. Tech. Pap.* 101(Suppl. 2). 218p. 1987. FR 33(2)
[Danish Inst. Fish. & Mar. Res., Charlottelund Slot, Denmark]

88-002253 Stammers, W. N.; J. B. Robinson; H. R. Whiteley and N. K. Kaushik. CHARACTERIZATION OF THE KINETICS OF "DENTRIFICATION" IN STREAM SEDIMENTS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and*

MATHEMATICS, STATISTICAL METHODS, AND MODELING (CONTINUED)

88-002253 CONTINUED *Steven M. Bartell, editors*. p. 479-486. 1983. FR 33(2)
[School Eng., Univ. Guelph, Guelph, ON, Canada]

88-002254 Tanasichuk, R. W. and D. M. Ware. INFLUENCE OF INTERANNUAL VARIATIONS IN WINTER SEA TEMPERATURE ON FECUNDITY AND EGG SIZE IN PACIFIC HERRING (*CLUPEA HARENGUS PALLASI*). *Can. J. Fish. Aquat. Sci.* 44(8):1485-1495. 1987. In English with French summ. FR 33(2)
[Dep. Fish. & Oceans, Fish. Res. Branch, Pac. Biol. Stn., Nanaimo, BC, Canada V9R 5K6]

88-002255 Thoma, R. F.; E. T. Rankin; M. A. Smith and R. E. Sanders. AN OBJECTIVE METHOD FOR RANKING THE GENERAL TOLERANCE AND INTOLERANCE OF STREAM FISHES. *Ohio J. Sci.* 88(2):9. 1988. Abstract only. FR 33(2)
[OEPA, 1030 King Ave., Columbus, OH 43212]

88-002256 Thoma, Roger F. and Edward T. Rankin. COMMUNITY AND ENVIRONMENTAL FACTORS ASSOCIATED WITH NATURALLY OCCURRING HYBRIDS BETWEEN *NOTROPIS CHRYSOCEPHALUS* AND *NOTROPIS RUBELLUS*. *Ohio J. Sci.* 88(2):8. 1988. Abstract only. FR 33(2)
[OEPA, 1030 King Ave., Columbus, OH 43212]

88-002257 Tricas, Timothy C. FOOD AND COMPETITORS AS DETERMINANTS OF FEEDING-TERRITORY SIZE IN CORAL-FEEDING BUTTERFLYFISHES: AN EXPERIMENTAL ANALYSIS. *Pac. Sci.* 39(4):396. 1988. Abstract Only. FR 33(2)
Chaetodon multicinctus.

88-002258 Tschirhart, John and Thomas D. Crocker. ECONOMIC VALUATION OF ECOSYSTEMS. *Trans. Am. Fish. Soc.* 116(3):469-478. 1987. FR 33(2)
[Dep. Econ., Univ. Wyo., Laramie 82071]

88-002259 Vickery, W. L.; F. G. Whoriskey and G. J. FitzGerald. ON THE EVOLUTION OF NEST RAIDING AND MALE DEFENSIVE BEHAVIOUR IN STICKLEBACKS (PISCES: GASTEROSTEIDAE). *Behav. Ecol. Sociobiol.* 22(3):185-193. 1988. FR 33(2)
[Dep. Sci. Biol., Univ. Quebec, C.P. 8888, Succ. "A", Montreal, PQ, Canada H3C 3P8]
Gasterosteus aculeatus, and *G. wheatlandi*.

88-002260 Wlosinski, Joseph H. and G. Wayne Minshall. PREDICTABILITY OF STREAM ECOSYSTEM MODELS OF VARIOUS LEVELS OF RESOLUTION. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors*. p. 69-86. 1983. FR 33(2)
[Army Corps Eng., Waterways Exp. Stn., Vicksburg, MS]

LAKE MANAGEMENT AND RESEARCH

88-002261 Andersson, G. FISH AS A REGULATOR OF STRUCTURE AND FUNCTION IN EUTROPHIC LAKE ECOSYSTEMS. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors*. p. 343. 1980. Abstract only. FR 33(2)
[Inst. Limnol., Fack, S-220 03 Lund 3, Sweden]

88-002262 Berkes, Fikret and Dorothy Pocock. QUOTA MANAGEMENT AND "PEOPLE PROBLEMS": A CASE HISTORY OF CANADIAN LAKE ERIE FISHERIES. *Trans. Am. Fish. Soc.* 116(3):494-502. 1987. FR 33(2)
[Inst. Urban & Environ. Studies, Brock Univ., St. Catherines, ON, Canada L2S 3A1]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

88-002263 Bienert, Raymond William, Jr. ZOOPLANKTON DYNAMICS IN AN ACIDIC, SUBTROPICAL LAKE. *Ph.D. dissertation, Univ. Fla.* 179p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2205. 1988. FR 33(2)

88-002264 Binkowski, Fred P. UTILIZATION OF ARTIFICIAL REEFS IN THE INSHORE AREAS OF LAKE MICHIGAN. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 349-362. 1986. FR 33(2)
[Cent. Great Lakes Studies, Univ. Wis., Milwaukee 53201]

88-002265 Bishop, Richard C.; Kevin J. Boyle and Michael P. Welsh. TOWARD TOTAL ECONOMIC VALUATION OF GREAT LAKES FISHERY RESOURCES. *Trans. Am. Fish. Soc.* 116(3):339-345. 1987. FR 33(2)
[Dep. Agric. Econ., Univ. Wis., Madison 53706]

88-002266 Boyce, F. M.; M. N. Charlton; D. Rathke; C. H. Mortimer and J. R. Bennett, editors. LAKE ERIE BINATIONAL STUDY 1979-1980. *J. Great Lakes Res.* 13(4):405-840. 1987. FR 33(2)
[Lakes Res. Branch, Natl. Water Res. Inst., Canada Cent. Inland Waters, Burlington, ON, Canada L7R 4A6]

88-002267 Broberg, Ola. DELAYED NUTRIENT RESPONSES TO THE LIMING OF LAKE GARDSJON, SWEDEN. *Ambio* 17(1):22-27. 1988. FR 33(2)
[Lake Gardsjon Project, Inst. Limnol., Univ. Uppsala, Box 557, S-751 22 Uppsala, Sweden]

88-002268 Brown, Tommy L. TYPOLOGY OF HUMAN DIMENSIONS INFORMATION NEEDED FOR GREAT LAKES SPORT-FISHERIES MANAGEMENT. *Trans. Am. Fish. Soc.* 116(3):320-324. 1987. FR 33(2)
[Dep. Nat. Resour., Cornell Univ., Ithaca, NY 14853]

88-002269 Chambers, M. R.; J. H. Kyle; G. J. Leach; P. L. Osborne and D. N. Leach. A LIMNOLOGICAL STUDY OF SEVEN HIGHLANDS LAKES IN PAPUA NEW GUINEA. *Sci. New Guinea* 13(2):51-81. 1987. FR 33(2)
[Minist. Lands, Energy & Rural Water Supply, P.O. Box 151, Port Vila, Vanuata, Papua New Guinea]

88-002270 Crawford, Steve and Anton M. Wicker. RECRUITMENT OF STOCKED LARGEMOUTH BASS FINGERLINGS INTO A CENTRAL FLORIDA FISHERY. *Fla. Sci.* 50(4):211-215. 1987. FR 33(2)
[Fish. Res. Lab., Game & Fresh Water Fish Comm., Eustis, FL 32727-1903] *Micropterus salmoides floridanus.*

88-002271 de Rooij, N. M. A CHEMICAL MODEL TO DESCRIBE NUTRIENT DYNAMICS IN LAKES. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 139-149. 1980. FR 33(2)
[Delft Hydraulics Lab., Box 177, 2600 MH Delft, Netherlands]

88-002272 Dochoda, Margaret Ross and Carlos M. Fetterolf, Jr. PUBLIC PURPOSE OF GREAT LAKES FISHERY MANAGEMENT: LESSONS FROM THE MANAGEMENT EXPERIENCE. *Trans. Am. Fish. Soc.* 116(3):302-308. 1987. FR 33(2)
[Great Lakes Fish. Comm., 1451 Green Rd., Ann Arbor, MI 48105]

88-002273 Dochoda, Margaret Ross, editor. COMMITTEE OF THE WHOLE WORKSHOP ON IMPLEMENTATION OF THE JOINT STRATEGIC PLAN FOR MANAGEMENT OF GREAT LAKES FISHERIES (REPORTS AND RECOMMENDATIONS FROM THE 18-20 FEBRUARY 1986 AND 5-6 MAY 1986 MEETINGS). *Great Lakes Fish. Comm. Spec. Publ.* 88-1. 170p. 1988. FR 33(2)
[Great Lakes Fish. Comm., 1451 Green Rd., Ann Arbor, MI 48105]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

88-002274 Eshenroder, Randy L. SOCIOECONOMIC ASPECTS OF LAKE TROUT REHABILITATION IN THE GREAT LAKES. *Trans. Am. Fish. Soc.* 116(3):309-313. 1987. FR 33(2)
[Great Lakes Fish. Comm., 1451 Green Rd., Ann Arbor, MI 48105]

88-002275 Fedkiw, John. COMING BACK TO MARKET VALUE AND VALUATION FOR THE GREAT LAKES FISHERIES. *Trans. Am. Fish. Soc.* 116(3):346-351. 1987. FR 33(2)
[Office Budget & Program Analysis, U.S. Dep. Agric., Washington, DC 20250]

88-002276 Gannon, John E.; Robert J. Danehy; Jon W. Anderson; Glenn Merritt and Andrew P. Bader. THE ECOLOGY OF NATURAL SHOALS IN LAKE ONTARIO AND THEIR IMPORTANCE TO ARTIFICIAL REEF DEVELOPMENT. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 113-139. 1986. FR 33(2)
[Int. Joint Comm., 100 Ouellette Ave., Windsor, ON, Canada N9A 6T3]

88-002277 Hartman, Wilbur L. HISTORICAL CHANGES IN THE MAJOR FISH RESOURCES OF THE GREAT LAKES. *In: Toxic Contaminants and Ecosystem Health: A Great Lakes Focus. Marlene S. Evans, editor.* p. 103-131. 1988. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Cent.-Great Lakes, Ann Arbor, MI 48105]

88-002278 Herdendorf, Charles E. PHYSICAL AND LIMNOLOGICAL CHARACTERISTICS OF NATURAL SPAWNING REEFS IN WESTERN LAKE ERIE. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 149-183. 1986. FR 33(2)
[Sea Grant Program, Ohio State Univ., Columbus 43210]

88-002279 Irving, John Spencer. THE EFFECTS OF SELECTIVE WATER WITHDRAWAL ON ZOOPLANKTON POPULATIONS OF LAKE KOOCANUSA, MONTANA. *Ph.D. dissertation, Univ. Idaho* 89p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2205-2206. 1988. FR 33(2)

88-002280 Janssen, John and John Quinn. BIOTA OF THE NATURALLY ROCKY AREA OF SOUTHWESTERN LAKE MICHIGAN WITH EMPHASIS ON POTENTIAL FISH PREY. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 431-442. 1986. FR 33(2)
[Biol. Dep., Loyola Univ., Chicago, IL 60626]

88-002281 Kajak, Zdzislaw and Jadwiga Rybak. THE EFFECT OF PIG MANURE AND MINERAL FERTILIZATION ON A EUTROPHIC LAKE ECOSYSTEM. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 337. 1980. FR 33(2)
[Inst. Ecol., 05-150 Tomianki, Dziekanow Lesny, Poland]

88-002282 Kevern, Niles R.; William E. Biener; Steve R. VanDerLaan and Scott D. Cornelius. PRELIMINARY EVALUATION OF AN ARTIFICIAL REEF AS A FISHERY MANAGEMENT STRATEGY IN LAKE MICHIGAN. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 443-448. 1986. FR 33(2)
[Dep. Fish. & Wildl., Mich. State Univ., East Lansing 48824]

88-002283 Krueger, Charles C. and Terrence R. Dehring. MANAGEMENT RECOMMENDATIONS FOR LAKE TROUT STOCKING AND CATCH IN THE WISCONSIN WATERS OF LAKE MICHIGAN. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 128. 16p. 1986. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI]

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

88-002284 Krueger, Charles C. and Terrence R. Dehring. A PROCEDURE TO ALLOCATE THE ANNUAL STOCKING OF SALMONIDS IN THE WISCONSIN WATERS OF LAKE MICHIGAN. *Wis. Dep. Nat. Resour. Fish Manage. Rep.* No. 127. 31p. 1986. FR 33(2)
[Bur. Fish. Manage., Dep. Nat. Resour., Madison, WI]

88-002285 Lacanilao, Flor. MANAGING LAGUNA LAKE FOR THE SMALL FISHERMAN. *Asian Aquacult. (SEAFDEC)* 9(3):3-4, 8, 12. 1987. FR 33(2)
[SEAFDEC, P.O. Box 256, Iloilo City, Philippines]

88-002286 Liston, Charles R.; Dan C. Brazo; Joe R. Bohr and John A. Gulvas. ABUNDANCE AND COMPOSITION OF LAKE MICHIGAN FISHES NEAR ROCK JETTIES AND A BREAKWATER, WITH COMPARISONS TO FISHES IN NEARBY NATURAL HABITATS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 491-513. 1986. FR 33(2)
[Dep. Fish. & Wildl., Mich. State Univ., East Lansing 48824]

88-002287 Marshall, B. E. and J. D. Langerman. A PRELIMINARY REAPPRAISAL OF THE BIOMASS OF INSHORE FISH STOCKS IN LAKE KARIBA. *Fish. Res.* 6(2):191-199. 1988. FR 33(2)
[Dep. Biol. Sci., Univ. Zimbabwe, P.O. Box MP 167, Mt. Pleasant, Harare, Zimbabwe]

88-002288 Moy, Philip B. and Robert R. Stickney. SUSPENDED SPAWNING CANS FOR CHANNEL CATFISH IN A SURFACE-MINE LAKE. *Prog. Fish-Cult.* 49(1):76-77. 1987. FR 33(2)
[Fish. Res. Lab., South. Ill. Univ., Carbondale 62901] *Ictalurus punctatus.*

88-002289 Prince, Eric D.; O. Eugene Maughan and Paul Brouha. SUMMARY AND UPDATE OF THE SMITH MOUNTAIN LAKE ARTIFICIAL REEF PROJECT. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 401-430. 1986. FR 33(2)
[Natl. Mar. Fish. Serv., 75 Virginia Beach Dr., Miami, FL 33149]

88-002290 Prophet, Carl W. CHANGES IN SEASONAL POPULATION STRUCTURES OF TWO SPECIES OF *DIAPTOMUS* (CALANOIDA, COPEPODA) SUBSEQUENT TO INTRODUCTIONS OF THREADFIN AND GIZZARD SHAD. *Southwest. Nat.* 33(1):41-53. 1988. FR 33(2)
[Div. Biol. Sci., Emporia State Univ., Emporia, KS 66801]

88-002291 Rast, Walter and Marjorie Holland. EUTROPHICATION OF LAKES AND RESERVOIRS: A FRAMEWORK FOR MAKING MANAGEMENT DECISIONS. *Ambio* 17(1):2-12. 1988. FR 33(2)
[Water Resour. Div., U.S. Geol. Surv., 300 E. 8th St., Austin, TX 78701]

88-002292 Rutecki, Thomas L.; John A. Dorr, III and David J. Jude. PRELIMINARY ANALYSIS OF COLONIZATION AND SUCCESSION OF SELECTED ALGAE, INVERTEBRATES, AND FISH ON TWO ARTIFICIAL REEFS IN INSHORE SOUTHEASTERN LAKE MICHIGAN. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 459-489. 1986. FR 33(2)
[Great Lakes Res. Div., Univ. Mich., Ann Arbor 48109]

88-002293 Stoffle, Richard W.; Florence V. Jensen and Danny L. Rasch. CULTURAL BASIS OF SPORT ANGLERS' RESPONSE TO REDUCED LAKE TROUT CATCH LIMITS. *Trans. Am. Fish. Soc.* 116(3):503-509. 1987. FR 33(2)

LAKE MANAGEMENT AND RESEARCH (CONTINUED)

88-002293 CONTINUED
[Surv. Res. Cent., Inst. Social Res., Univ. Mich., P.O. Box 1248, Ann Arbor 48106] *Salvelinus namaycush*.

88-002294 Talhelm, Daniel R. THE ECONOMIC IMPACT OF ARTIFICIAL REEFS ON GREAT LAKES SPORT FISHERIES. *In: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 537-543. 1986. FR 33(2)
[Dep. Fish. & Wildl., Resour. Dev. & For., Mich. State Univ., East Lansing 48824]

88-002295 Usher, Anthony J. ONTARIO LAKE OF THE WOODS FISHERY: ECONOMIC AND SOCIAL ANALYSIS. *Trans. Am. Fish. Soc.* 116(3):352-366. 1987. FR 33(2)
[222 Dixon Rd., Suite 105, Weston, ON, Canada M9P 3S5]

88-002296 Vanderpool, Christopher K. SOCIAL IMPACT ASSESSMENT AND FISHERIES. *Trans. Am. Fish. Soc.* 116(3):479-485. 1987. FR 33(2)
[Dep. Sociol., Mich. State Univ., East Lansing 48824]

88-002297 Vant, W. M., editor. LAKE MANAGERS HANDBOOK: A GUIDE TO UNDERTAKING AND UNDERSTANDING INVESTIGATIONS INTO LAKE ECOSYSTEMS, SO AS TO ASSESS MANAGEMENT OPTIONS FOR LAKES. *Water Soil Misc. Publ. (N.Z.)* No. 103. 230p. 1987. FR 33(2)
[Water Quality Cent., Minist. Works & Dev., Hamilton, NZ]

88-002298 Wilkonska, Halina. FISH FRY AND EXPLOITED FISH SPECIES IN LAKE ZARNOWIECKIE. *Pol. Ecol. Studies* 12(3-4):347-362. 1987. In English with Polish summ. FR 33(2)
[Inland Fish. Inst., Dep. Ichthyol., 10-957 Olsztyn-Kortowo 5, Poland]

88-002299 Zdanowski, Boguslaw and Anna Stanczykowska. ECOLOGY OF LAKE ZARNOWIECKIE. *Pol. Ecol. Studies* 12(3-4):383-399. 1987. In English with Polish summ. FR 33(2)
[Inland Fish. Inst., Dep. Ichthyol., 10-957 Olsztyn-Kortowo 5, Poland]

RIVER AND STREAM MANAGEMENT AND RESEARCH

88-002300 Allan, J. David. FOOD CONSUMPTION BY TROUT AND STONEFLIES IN A ROCKY MOUNTAIN STREAM, WITH COMPARISON TO PREY STANDING CROP. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 371-390. 1983. FR 33(2)
[Dep. Zool., Univ. Md., College Park] *Salmo clarki, S. gairdneri, S. trutta,* and *Salvelinus fontinalis*.

88-002301 Baker, J. A.; C. H. Pennington; C. R. Bingham and L. E. Winfield. AN ECOLOGICAL EVALUATION OF FIVE SECONDARY CHANNEL HABITATS IN THE LOWER MISSISSIPPI RIVER. *Lower Miss. River Environ. Prog. Rep.* No. 7. 147p. 1987. Available from NTIS, 5285 Port Royal Rd., Springfield, VA 22161 FR 33(2)
[U.S. Army Eng. Watersays Exp. Stn. Environ. Lab., P.O. Box 631, Vicksburg, MS 39180-0631]

88-002302 Bilby, Robert E. and Peter A. Bisson. EMIGRATION AND PRODUCTION OF HATCHERY COHO SALMON (*ONCORHYNCHUS KISUTCH*) STOCKED IN STREAMS DRAINING AN OLD-GROWTH AND A CLEAR-CUT WATERSHED. *Can. J. Fish. Aquat. Sci.* 44(8):1397-1407. 1987. In English with French summ. FR 33(2)
[Weyerhaeuser Co., West. For. Res. Cent., Centralia, WA 98531]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

88-002303 Brinson, Mark M.; H. David Bradshaw and Russell N. Holmes. SIGNIFICANCE OF FLOODPLAIN SEDIMENTS IN NUTRIENT EXCHANGE BETWEEN A STREAM AND ITS FLOODPLAIN. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 199-221. 1983. FR 33(2)
[Dep. Biol., East Carolina Univ., Greenville, NC]

88-002304 Burton, Thomas M. and Darrell L. King. ALTERATIONS IN THE BIODYNAMICS OF THE RED CEDAR RIVER ASSOCIATED WITH HUMAN IMPACTS DURING THE PAST 20 YEARS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 181-197. 1983. FR 33(2)
[Dep. Zool., Dep. Fish. & Wildl., Mich. State Univ., East Lansing]

88-002305 Denoncourt, Robert and Terry Euston. BIOLOGY OF BLUE TILAPIA, *OREOCHROMIS AUREUS* (STEINDACHNER) IN THE SUSQUEHANNA RIVER. *Proc. Pa. Acad. Sci.* 61(1):85. 1987. Abstract only. FR 33(2)
[York Coll., York, PA 17404]

88-002306 Elwood, J. W.; J. D. Newbold; R. V. O'Neill and W. Van Winkle. RESOURCE SPIRALING: AN OPERATIONAL PARADIGM FOR ANALYZING LOTIC ECOSYSTEMS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 3-27. 1983. FR 33(2)
[Environ. Sci. Div., Oak Ridge Natl. Lab., Oak Ridge, TN]

88-002307 Fontaine, Thomas D. III and Steven M. Bartell, editors. DYNAMICS OF LOTIC ECOSYSTEMS. *Ann Arbor Sci. Publ.* 494p. 1983. FR 33(2)
[230 Collingwood, P.O. Box 1425, Ann Arbor, MI 48106] Selected chapters indexed in this issue of *Fisheries Review.*

88-002308 Gatz, A. John, Jr. DO STREAM FISHES FORAGE OPTIMALLY IN NATURE? *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 391-402. 1983. FR 33(2)
[Dep. Zool., Ohio Wesleyan Univ., Delaware, OH]

88-002309 Gray, Gerard A. and Dennis W. Rondorf. PREDATION ON JUVENILE SALMONIDS IN COLUMBIA BASIN RESERVOIRS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael M. Van Den Avyle, editors.* p. 178-185. 1986. FR 33(2)
[U.S. Fish & Wildl. Serv., Natl. Fish. Res. Cent., Willard Field Stn., Cook, WA 98605]

88-002310 Hassler, T. J. and S. A. Spaar. ESTIMATING SALMON PRODUCTION AT A SPAWNING CHANNEL ON THE SACRAMENTO RIVER. *Northwest Sci.* 62(2):86. 1988. Abstract only. FR 33(2)
[Coop. Fish. Unit, Humboldt State Univ., Arcata, CA]

88-002311 Hergenrader, Gary L.; Lee G. Harrow; Ronald G. King; Glenn F. Cada and Allen B. Schlesinger. LARVAL FISHES IN THE MISSOURI RIVER AND THE EFFECTS OF ENTRAINMENT. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 185-223. 1982. FR 33(2)
[Dep. For., Fish., & Wildl., Univ. Nebr., Lincoln 68583]

88-002312 Hesse, Larry W.; Allen B. Schlesinger; Gary L. Hergenrader; Steven D. Reetz and Howard S. Lewis. THE MISSOURI RIVER STUDY-ECOLOGICAL PERSPECTIVES. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 287-300. 1982. FR 33(2)
[Game & Parks Comm., Fish. Res. Div. Box 934, Norfolk, NE 68701]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

88-002313 Hesse, Larry W., Quentin P. Bliss and Gene J. Zuerlein. SOME ASPECTS OF THE ECOLOGY OF ADULT FISHES IN THE CHANNELIZED MISSOURI RIVER WITH SPECIAL REFERENCE TO THE EFFECTS OF TWO NUCLEAR POWER GENERATING STATIONS. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 225-276. 1982. FR 33(2)
[Game & Parks Comm., Fish. Res. Div., Box 934, Norfolk, NE 68701]

88-002314 Hesse, Larry W.; Allen B. Schlesinger; Gary L. Hergenrader; Steven D. Reetz and Howard S. Lewis. ASSESSMENT OF NUCLEAR POWER PLANT EFFECTS ON MISSOURI RIVER BIOTA, INCLUDING A FUTURE RIVER RESEARCH RATIONALE. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 279-284. 1982. FR 33(2)
[Game & Parks Comm., Fish. Res. Div., Box 934, Norfolk, NE 68701]

88-002315 Hill, Alan R. NITRATE-NITROGEN MASS BALANCES FOR TWO ONTARIO RIVERS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 457-477. 1983. FR 33(2)
[Dep. Geogr., York Univ., Toronto, ON, Canada]

88-002316 Hill, B. H. and J. R. Webster. AQUATIC MACROPHYTE CONTRIBUTION TO THE NEW RIVER ORGANIC MATTER BUDGET. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 273-282. 1983. FR 33(2)
[Grad. Program Environ. Sci., Univ. Tex. Dallas, P.O. Box 688, Richardson 75080]

88-002317 Hughes, R. M. and J. M. Omernik. AN ALTERNATIVE FOR CHARACTERIZING STREAM SIZE. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 87-101. 1983. FR 33(2)
[U.S. Environ. Protection Agency, Corvallis, OR]

88-002318 Joeres, Erhard F. and Nathaniel Tetrick. RIVER WASTE HEAT ASSIMILATION VS. ORGANIC WASTE DISCHARGE. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 103-125. 1983. FR 33(2)
[Dep. Civil & Environ. Eng., Univ. Wis., Madison]

88-002319 Johnson, James E.; Richard P. Kramer; Eric Larson and Bruce L. Bonebrake. FINAL REPORT: FLAMING GORGE TAILWATER FISHERIES INVESTIGATIONS: TROUT GROWTH, HARVEST, SURVIVAL, AND MICROHABITAT SELECTION IN THE GREEN RIVER, UTAH, 1978-82. *Utah Dep. Nat. Resour. Publ.* No. 87-13. 185p. 1987. FR 33(2)
[Dep. Nat. Resour., Div. Wildl. Resour., 1596 W.N. Temple, Salt Lake City, UT 84116] *Salmo trutta, S. clarki,* and *S. gairdneri.*

88-002320 Kelly-Quinn, M. and J. J. Bracken. BROWN TROUT, *SALMO TRUTTA* L., PRODUCTION IN AN IRISH COASTAL STREAM. *Aquacult. Fish. Manage.* 19(1):69-95. 1988. FR 33(2)
[Bracken: Dep. Zool., Univ. Coll., Belfield, Dublin 4, Ireland]

88-002321 Kirby, J. M.; J. R. Webster and E. F. Benfield. THE ROLE OF SHREDDERS IN DETRITAL DYNAMICS OF PERMANENT AND TEMPORARY STREAMS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 425-435. 1983. FR 33(2)
[Biol. Dep., VPI&SU, Blacksburg, VA]

88-002322 Knight, Robert L. ENERGY BASIS OF ECOSYSTEM CONTROL AT SILVER SPRINGS, FLORIDA. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 161-179. 1983. FR 33(2)
[CH_2 HILL, P.O. Box 1647, Gainesville, FL] *Gambusia affinis.*

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

88-002323 Konovalov, S. M. [OPTIMAL PACKING OF SPAWNING GROUNDS AS A FACTOR OF STABILITY AND HIGH EFFECTIVENESS OF SALMON FISHERY.] *Mar. Biol. Vladivostok* 1987(3):44-55. 1987. In Russian with English summ. FR 33(2)
Oncorhynchus nerka and *O. gorbuscha*.

88-002324 Larsen, Knud. [THE SEA TROUT SPAWNING RUN INTO DANISH STREAMS 1900-1960. II. FUNEN AND EASTERN-JUTLAND FROM THE GERMAN BORDER UP TO AND INCLUDING THE RANDERS FJORD.] *Medd. Ferskvandfiskerilab. Dan. Fisk. Havunders.* 87(1):1-69. 1987. In Danish with English summ. FR 33(2)
[Ferskvandsfiskerilab., Lysbrogade 52, DK-8600 Silkeborg, Denmark] *Salmo salar*.

88-002325 Lyons, John; Anne M. Forbes and Michael D. Staggs. FISH SPECIES ASSEMBLAGES IN SOUTHWESTERN WISCONSIN STREAMS WITH IMPLICATIONS FOR SMALLMOUTH BASS MANAGEMENT. *Wis. Dep. Nat. Resour. Tech. Bull.* No. 161. 25p. 1988. FR 33(2)
[Dep. Nat. Resour., P.O. Box 7921, Madison, WI 53707]

88-002326 Matson, E. A. and R. L. Klotz. ORGANIC CARBON SUPPLY AND DEMAND IN THE SHETUCKET RIVER OF EASTERN CONNECTICUT. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 247-269. 1983. FR 33(2)
[Dep. Biol., East Carolina Univ., Greenville, NC]

88-002327 Matter, William J.; Patrick L. Hudson and Gary E. Saul. INVERTEBRATE DRIFT AND PARTICULATE ORGANIC MATERIAL TRANSPORT IN THE SAVANNAH RIVER BELOW LAKE HARTWELL DURING A PEAK POWER GENERATION CYCLE. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 357-370. 1983. FR 33(2)
[School Renewable Nat. Resour., Univ. Ariz., Tucson]

88-002328 McCullough, Dale Alan. A SYSTEMS CLASSIFICATION OF WATERSHEDS AND STREAMS. *Ph.D. dissertation, Oreg. State Univ.* 230p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2248-2249. 1988. FR 33(2)

88-002329 McIntire, C. David. A CONCEPTUAL FRAMEWORK FOR PROCESS STUDIES IN LOTIC ECOSYSTEMS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editor.* p. 43-68. 1983. FR 33(2)
[Dep. Bot. & Plant Pathol., Oreg. State Univ., Corvallis]

88-002330 Mulier, D. and V. Kirchesch. HYPERTROPHY IN SLOW FLOWING RIVERS. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 338. 1980. FR 33(2)
[Fed. Inst. Hydrol., Box 309, D-5400 Koblenz, West Germany]

88-002331 Nailon, Robert W. and C. H. Pennington. FISHES OF TWO DIKE POOLS DURING SUMMER LOW FLOW. *J. Miss. Acad. Sci.* 32:79-90. 1987. FR 33(2)
[Tex. A&M Univ., Sea Grant Coll. Program, College Station, 77843]

88-002332 Nieman, Douglas. RECREATIONAL FISHERY CHARACTERISTICS IN THREE SOUTHEAST PENNSYLVANIA WARMWATER STREAMS. *Proc. Pa. Acad. Sci.* 61(1):93. 1987. Abstract only. FR 33(2)
[RMC-Environ. Serv., Pottstown, PA 11464] *Lepomis, Micropterus dolomieui, Ictalurus*, and *Cyprinus carpio*.

88-002333 Pacific Fishery Management Council. REVIEW OF 1987 OCEAN SALMON FISHERIES. *Pac. Fish. Manage. Council* 240p. 1988. FR 33(2)
[Pac. Fish Manage. Council, Metro. Cent., Suite 420, 2000 S.W. First Ave., Portland, OR 97201] *Oncorhynchus kisutch* and *O. tschawytscha*.

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

88-002334 Paragamian, Vaughn L. STANDING STOCKS OF FISH IN SOME IOWA STREAMS, WITH A COMPARISON OF CHANNELIZED AND NATURAL STREAM REACHES IN THE SOUTHERN IOWA DRIFT PLAIN. *Proc. Iowa Acad. Sci.* 94(4):128-134. 1987. FR 33(2)
[Dep. Nat. Resour., N.E. Dist. Headquarters, R.R. #2, Box 269, Manchester, IA 52057]

88-002335 Paul, Robert W., Jr.; Ernest F. Benfield and John Cairns, Jr. DYNAMICS OF LEAF PROCESSING IN A MEDIUM-SIZED RIVER. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 403-423. 1983. FR 33(2)
[Div. Nat. Sci. & Math., St. Mary's Coll., St. Mary's City, MD]

88-002336 Reice, Seth R. PREDATION AND SUBSTRATUM: FACTORS IN LOTIC COMMUNITY STRUCTURE. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editor.* p. 325-345. 1983. FR 33(2)
[Dep. Zool., Univ. N.C., Chapel Hill]

88-002337 Rodgers, John H., Jr.; Mark E. McKevitt; Don O. Hammerlund; Kenneth L. Dickson and John Cairns, Jr. PRIMARY PRODUCTION AND DECOMPOSITION OF SUBMERGENT AND EMERGENT AQUATIC PLANTS OF TWO APPALACHIAN RIVERS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 283-301. 1983. FR 33(2)
[Inst. Appl. Sci. & Biol. Dep., North Tex. State Univ., Denton]

88-002338 Schlesinger, Allen B.; L. John Cooper and Lee G. Harrow. INTRODUCTION. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 1-13. 1982. FR 33(2)
[Dep. Biol., Creighton Univ., Omaha, NE 68178]

88-002339 Scully, Richard James. ASSESSMENT OF COLOMBIA'S UPPER META RIVER FOOD-FISH FISHERY AND CONSIDERATIONS FOR MANAGEMENT OF TROPICAL FLOODPLAIN RIVER FISHERIES. *Ph.D. dissertation, Auburn Univ.* 124p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(8):2235. 1988. FR 33(2)

88-002340 Slizeski, Joseph J.; John L. Andersen and Wayne G. Dorough. HYDROLOGIC SETTING, SYSTEM OPERATION, PRESENT AND FUTURE STRESSES. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 15-37. 1982. FR 33(2)
[U.S. Army Corps Eng., Omaha, NE 68102]

88-002341 Srivardhana, Ruangdej. THE NAM PONG CASE STUDY. *Int. J. Water Resour. Dev.* 3(4):238-246. 1987. FR 33(2)
[Dep. Econ., Kasetsart Univ., Bangkok, Thailand]

88-002342 Thoma, Roger F. and Paul S. Albeit. THE FISHES OF THE FLUSHING ESCARPMENT. *Ohio J. Sci.* 88(2):8. 1988. Abstract only. FR 33(2)
[OEPA, 1030 King Ave., Columbus, OH 43212]

88-002343 Todd, Robert D. and John F. Bender. WATER QUALITY CHARACTERISTICS OF THE MISSOURI RIVER NEAR FORT CALHOUN AND COOPER NUCLEAR STATIONS. *In: The Middle Missouri River. Larry W. Hesse, Gary L. Hergenrader, Howard S. Lewis, Steven D. Reetz, and Allen B. Schlesinger, editors.* p. 39-68. 1982. FR 33(2)
[Ecol. Analysts, Inc., 221 Oakcreek Dr., Lincoln, NE 68528]

RIVER AND STREAM MANAGEMENT AND RESEARCH (CONTINUED)

88-002344 Triska, F. J.; V. C. Kennedy; R. V. Avanzino and Barbara N. Reilly. EFFECT OF SIMULATED CANOPY COVER ON REGULATION OF NITRATE UPTAKE AND PRIMARY PRODUCTION BY NATURAL PERIPHYTON ASSEMBLAGES. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 129-159. 1983. FR 33(2)
[U.S. Geol. Survey, Menlo Park, CA]

88-002345 Ward, James V. and Jack A. Stanford. THE INTERMEDIATE-DISTURBANCE HYPOTHESIS: AN EXPLANATION FOR BIOTIC DIVERSITY PATTERNS IN LOTIC ECOSYSTEMS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 347-356. 1983. FR 33(2)
[Dep. Zool. & Entomol., Colo. State Univ., Fort Collins]

88-002346 Ward, James V. and Jack A. Stanford. THE SERIAL DISCONTINUITY CONCEPT OF LOTIC ECOSYSTEMS. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 29-42. 1983. FR 33(2)
[Dep. Zool. & Entomol., Colo. State Univ., Fort Collins]

88-002347 Yarbo, Laura A. THE INFLUENCE OF HYDROLOGIC VARIATIONS ON PHOSPHORUS CYCLING AND RETENTION IN A SWAMP STREAM ECOSYSTEM. *In: Dynamics of Lotic Ecosystems. Thomas D. Fontaine III and Steven M. Bartell, editors.* p. 223-245. 1983. FR 33(2)
[Harbor Branch Found., RR1, Box 196, Ft. Pierce, FL 33450]

88-002348 Zimpfer, Steven P.; William E. Kelso; C. Fred Bryan and C. H. Pennington. ECOLOGICAL FEATURES OF EDDIES ASSOCIATED WITH REVETMENTS IN THE LOWER MISSISSIPPI RIVER. *Lower Miss. River Environ. Prog. Rep.* No. 8. 131p. 1988. Available from NTIS, 5285 Port Royal Rd., Springfield, VA 22161 FR 33(2)
[La. State Univ., Baton Rouge 70803]

FARM POND AND SMALL IMPOUNDMENT MANAGEMENT AND RESEARCH

88-002349 Edney, Norris Allen; Muhammad Rizvi; Narjis Rizvi and Johnnie Gibbs. A COMPARATIVE STUDY OF WATER QUALITY OF SOME SELECTED FARM PONDS AND WOODED WATERSHEDS OF SOUTHWEST MISSISSIPPI. *J. Miss. Acad. Sci.* 32:91-97. 1987. FR 33(2)
[Biol. Sci. Res. Lab., Alcorn State Univ., Lorman, MS 39096]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH

88-002350 Belusz, Lawrence C. and Daniel J. Witter. WHY ARE THEY HERE AND HOW MUCH DO THEY SPEND? A SURVEY OF MUSKELLUNGE ANGLER CHARACTERISITCS, EXPENDITURES, AND BENEFITS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 39-45. 1986. FR 33(2)
[Dep. Conserv., P.O. Box 180, Jefferson City, MO 65102] *Esox masquinongy* in Missouri.

88-002351 Boxrucker, Jeff. EVALUATION OF STOCKING INLAND SILVERSIDES AS SUPPLEMENTAL FORAGE FOR LARGEMOUTH BASS AND WHITE CRAPPIE. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 149-155. 1986. FR 33(2)
[Dep. Wildl. Conserv., Fish. Res. Lab., 1416 Planck, Norman, OK 73069] *Dorosoma cepedianum, Menidia beryllina, Micropterus salmoides, Pomoxis annularis,* and *Lepomis* spp. in Oklahoma.

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

88-002352 Brown, Allen M. MODIFYING RESERVOIR FISH HABITAT WITH ARTIFICIAL STRUCTURES. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 98-102. 1986. FR 33(2)
[Tenn. Valley Authority, 451 Evans Bldg., Knoxville 37902]

88-002353 Carline, Robert F. INDICES AS PREDICTORS OF FISH COMMUNITY TRAITS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 46-56. 1986. FR 33(2)
[Coop. Fish. Res. Unit, Ohio State Univ., Columbus 43210]

88-002354 Crawford, Tommie. THE EFFECTS OF COMMERCIAL FISH REMOVAL BY NETTING ON SPORT FISH POPULATIONS IN TWO ARKANSAS RESERVOIRS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 310. 1986. Abstract only. FR 33(2)
[Game & Fish Comm., Natural Resources Dr., Little Rock, AR 72205]

88-002355 Dent, Ronald J., Jr. METHODS AND PARAMETERS USED IN EVALUATING BASS LENGTH LIMITS ON POMME DE TERRE LAKE, MISSOURI. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 65-72. 1986. FR 33(2)
[Dep. Conserv., 1104 S. Grand St., Sedalia, MO 65301] *Micropterus dolieui, M. punctulatus* and *Micropterus salmoides.*

88-002356 Dent, Ronald J., Jr. RESULTS OF A BLACK BASS 15-INCH MINIMUM LENGTH LIMIT ON POMME DE TERRE LAKE, MISSOURI. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 309-310. 1986. FR 33(2)
[Dep. Conserv., 1104 S. Grand, Sedalia, MO 65301] *Micropterus* spp.

88-002357 Filipek, Stephen P. and Michael D. Gibson. EVALUATION OF SUPPLEMENTAL STOCKING OF FINGERLING LARGEMOUTH BASS IN LAKE CORONADO, ARKANSAS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 313. 1986. Abstract only. FR 33(2)
[Game & Fish Comm., Rt. 1, Box 477, Hot Springs, AR 71901] *Micropterus salmoides.*

88-002358 Fisher, Warren L.; J. J. Charbonneau and Michael J. Hay. ECONOMIC CHARACTERISTICS OF RESERVOIR FISHERIES. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 5-10. 1986. FR 33(2)
[U.S. Fish & Wildl. Serv., Washington, DC 20240]

88-002359 Fritz, Arnold W. and Harry L. Wight. COMMERCIAL FISHING AS A RESERVOIR MANAGEMENT TOOL. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 190-202. 1986. FR 33(2)
[Dep. Conserv., Carlyle, IL 62231]

88-002360 Goddard, John A. and Lee C. Redmond. STOCKTON LAKE: PROLONGING THE "BOOM," MANAGING A NEW LARGE RESERVOIR WITH MINIMUM LENGTH LIMITS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 203-210. 1986. FR 33(2)
[Div. Fish., Dep. Conserv., Jefferson City, MO 65102] *Micropterus salmoides, Stizostedion vitreum, Esox lucius, Menidia beryllina,* and *Dorosoma petenense* in Missouri.

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

88-002361 Hall, Gordon E. and Michael J. Van Den Avyle. RESERVOIR FISHERIES MANAGEMENT STRATEGIES FOR THE 80's. *Am. Fish. Soc.* 327p. 1986. FR 33(2)
Individual chapters indexed in this issue of *Fisheries Review*.

88-002362 Harper, Jack L. and Harold E. Namminga. FISH POPULATION TRENDS IN TEXOMA RESERVOIR FOLLOWING ESTABLISHMENT OF STRIPED BASS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 156-165. 1986. FR 33(2)
[Dep. Wildl. Conserv., P.O. Box 53465, Oklahoma City, OK 73152] *Morone saxatilis, M. chrysops, Micropterus, Dorosoma cepedianum,* and *D. petenense* in Oklahoma.

88-002363 Hickman, Gary D. and Kerry W. Hevel. EFFECT OF A HYPOLIMNETIC DISCHARGE ON REPRODUCTIVE SUCCESS AND GROWTH OF WARMWATER FISH IN A DOWNSTREAM IMPOUNDMENT. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 286-293. 1986. FR 33(2)
[TVA, Office Nat. Resour., Div. Nat. Resour. Operations, Norris, TN 37828] *Micropterus salmoides* in Tennessee.

88-002364 Hoyt, Robert D. and Bonny D. Laflin. MANAGEMENT OF SMALLMOUTH BUFFALO IN ROUGH RIVER LAKE, KENTUCKY, DURING THE FIRST TWENTY YEARS OF IMPOUNDMENT. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 108. 1986. Abstract only. FR 33(2)
[Dep. Biol., West Ky. Univ., Bowling Green 42101] *Ictiobus bubalus*.

88-002365 Jacobs, Kenneth E.; William D. Swink and Jerry F. Novotny. MINIMUM TAILWATER FLOWS IN RELATION TO HABITAT SUITABILITY AND SPORT-FISH HARVEST. *N. Am. J. Fish. Manage.* 7(4):569-574. 1987. FR 33(2)
[Whiskers Catfish Farm, 3024 Hunting Creek Dr., Bowling Green, KY 42101] *Salmo gairdneri, Ictalurus punctatus, Micropterus dolomieui,* and *Pomoxis annularis* in Kentucky.

88-002366 Jakes, David S. and Ronnie J. Gilbert. SIZE STRUCTURES AND CATCH RATES OF UNEXPLOITED LARGEMOUTH BASS POPULATIONS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 307-308. 1986. Abstract only. FR 33(2)
[Coop. Fish. Res. Unit, School. For. Resour., Univ. Ga., Athens 30602] *Micropterus salmoides* in Georgia.

88-002367 Jernejcic, Frank. WALLEYE MIGRATION THROUGH TYGART DAM AND ANGLER UTILIZATION OF THE RESULTING TAILWATER AND LAKE FISHERIES. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 294-300. 1986. FR 33(2)
[Dep. Nat. Resour., Div. Wildl. Resour., Fairmont, WV 26554] *Stizostedion vitreum vitreum* in West Virginia.

88-002368 Jones, T. Wayne. ESTABLISHMENT OF A WALLEYE POPULATION BY STOCKING IN GASTON RIVER. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 312. 1986. Abstract only. FR 33(2)
[Rt. 3, Box 214, Asheville, NC 28806] *Stizostedion vitreum vitreum.*

88-002369 Kapetsky, J. M. MANAGEMENT OF FISHERIES ON LARGE AFRICAN RESERVOIRS - AN OVERVIEW. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 28-38. 1986. FR 33(2)
[Inland Water Resour. Aquacult. Serv., FAO United Nations, 00100 Rome, Italy]

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

88-002370 Keith, William E. A REVIEW OF INTRODUCTION AND MAINTENANCE STOCKING IN RESERVOIR FISHERIES MANAGEMENT. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 144-148. 1986. FR 33(2)
[Fish. Div., Game Fish Comm., Little Rock, AR 72205]

88-002371 Kimmel, Bruce L. and Alan W. Groeger. LIMNOLOGICAL AND ECOLOGICAL CHANGES ASSOCIATED WITH RESERVOIR AGING. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 103-109. 1986. FR 33(2)
[Environ. Sci. Div., Oak Ridge Natl. Lab., Oak Ridge, TN 37830]

88-002372 Kohler, Christopher C.; John J. Ney and William E. Kelso. FILLING THE VOID: DEVELOPMENT OF A PELAGIC FISHERY AND ITS CONSEQUENCES TO LITTORAL FISHES IN A VIRGINIA MAINSTREAM RESERVOIR. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 166-177. 1986. FR 33(2)
[Fish. Res. Lab., South. Ill. Univ., Carbondale 62901] *Stizostedion vitreum, Morone chrysops, M. saxatilis,* and *Esox* spp.

88-002373 Krieger, Douglas A. and Steve Puttman. EVALUATION OF SUPPLEMENTAL STOCKING OF YEARLING LARGEMOUTH BASS IN CHATFIELD RESERVOIR, COLORADO. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 311. 1986. Abstract only. FR 33(2)
[Div. Wildl., 317 W. Prospect, Fort Collins, CO 80526]

88-002374 Marcus, Michael Dean. ECOLOGY AND MANAGEMENT OF HEADWATER RESERVOIRS. *Ph.D. dissertation, Univ. Wyo.* 235p. 1987. From Diss. Abstr. Int. B Sci. Eng. 48(6):1587-1588. 1987. FR 33(2)

88-002375 Martin, Christopher and Tim B. Hess. THE USE OF A "SLOT" LENGTH LIMIT REGULATION FOR LARGEMOUTH BASS ON A NEW GEORGIA RESERVOIR. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 306. 1986. Abstract only. FR 33(2)
[Dep. Nat. Resour., Game Fish Div., Atlanta, GA 30334] *Micropterus salmoides.*

88-002376 Miranda, L. Esteban and Philip P. Durocher. EFFECTS OF ENVIRONMENTAL FACTORS ON GROWTH OF LARGEMOUTH BASS IN TEXAS RESERVOIRS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 115-121. 1986. FR 33(2)
[Parks Wildl. Dep., Heart Hills Res. Stn., Ingram, TX 78025] *Micropterus salmoides.*

88-002377 Noble, Richard L. PREDATOR-PREY INTERACTIONS IN RESERVOIR COMMUNITIES. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 137-143. 1986. FR 33(2)
[Dep. Wildl. & Fish. Sci., Tex. A&M Univ., College Station 77843]

88-002378 Novinger, Gary D. EFFECTS OF A 15-INCH MINIMUM LENGTH LIMIT ON LARGEMOUTH BASS AND SPOTTED BASS FISHERIES IN TABLE ROCK LAKE, MISSOURI. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 308-309. 1986. Abstract only. FR 33(2)
[Dep. Conserv., 1110 College Ave., Columbia, MO 65201] *Micropterus salmoides* and *M. punctulatus.*

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

88-002379 Olmsted, Larry L. and James P. Clugston. FISHERY MANAGEMENT IN COOLING IMPOUNDMENTS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 227-237. 1986. FR 33(2)
[Duke Power Co., Product. Environ. Serv., Huntersville, NC 28078]

88-002380 Peters, John C. ENHANCING TAILWATER FISHERIES. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 278-285. 1986. FR 33(2)
[Environ. Affairs Office, U.S. Bur. Reclam. Eng. Res. Cent., Denver, CO 80225]

88-002381 Pitrolo, Elizabeth. THE ELECTROPHORETIC AND MORPHOMETRIC COMPARISON OF LAKE AND STREAM POPULATIONS OF THE TROUTPERCH. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 311. 1986. Abstact only. FR 33(2)
[U.S. Army Corps Eng., 210 Tucker Blvd., North Saint Louis, MO 63101] *Percopsis omiscomaycus.*

88-002382 Prosser, Norville S. AN OVERVIEW OF RESERVOIR FISHERIES PROBLEMS AND OPPORTUNITIES RESULTING FROM HYDROPOWER. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 238-246. 1986. FR 33(2)
[Sport Fishing Inst., 608-13th St., N.W., Washington, DC 20005]

88-002383 Redmond, Lee C. THE HISTORY AND DEVELOPMENT OF WARMWATER FISH HARVEST REGULATIONS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 186-195. 1986. FR 33(2)
[Div. Fish., Dep. Conserv., Jefferson City, MO 65102]

88-002384 Richards, Kevin. EVALUATION OF A 15-INCH MINIMUM LENGTH LIMIT FOR BLACK BASS AT LAKE OF THE OZARKS, MISSOURI. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 309. 1986. Abstract only. FR 33(2)
[Dep. Conserv., 1104 S. Grand, Sedalia, MO 65301] *Micropterus* spp.

88-002385 Richards, Kevin R.; Ronald J. Dent, Jr. and William H. Dieffenbach. FISHERIES PROBLEMS ASSOCIATED WITH THE TRUMAN DAM PUMPED STORAGE HYDROELECTRIC PROJECT IN WEST CENTRAL MISSOURI. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 247-254. 1986. FR 33(2)
[Dep. Conserv., P.O. Box 180, Jefferson City, MO 65102]

88-002386 Ruane, Richard J.; Charles F. Bohac; William M. Seawell and Richard M. Shane. IMPROVING THE DOWNSTREAM ENVIRONMENT BY RESERVOIR RELEASE MODIFICATIONS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 270-277. 1986. FR 33(2)
[TVA, Div. Air Water Resour., Knoxville, TN 37902]

88-002387 Siler, J. Robert; William J. Foris and Michael C. McInerny. SPATIAL HETEROGENEITY IN FISH PARAMETERS WITHIN A RESERVOIR. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 122-136. 1986. FR 33(2)
[Duke Power Co., Product. Environ. Serv., Rt. 4, Box 531, Huntersville, NC 28078] *Micropterus salmoides, Pomoxis, Morone saxatilis, M. chrysops,* and *Dorosoma petenense.*

LARGE IMPOUNDMENT MANAGEMENT AND RESEARCH (CONTINUED)

88-002388 Smith, William B.; Wayne R. Chapman and Kimberly E. Garner. THE EFFECT OF A MODIFIED-SLOT REGULATION ON LARGEMOUTH BASS HARVEST AT LAKE NORMAN. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 306-307. 1986. Abstract only. FR 33(2)
[Wildl. Resour. Comm., 512 N. Salisbury St., Raleigh, NC 27611] *Micropterus salmoides.*

88-002389 Smithson, James A.; Kenneth F. Kurzawski and Thomas V. Clevenger. MANAGEMENT OF LARGEMOUTH BASS IN A PERCHED COOLING POND IN ILLINOIS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 255-260. 1986. FR 33(2)
[Power Co., Clinton Power Stn., Box 678, Clinton, IL 61727] *Micropterus salmoides,* and *Dorosoma petenense.*

88-002390 Spencer, S. L. NEEDS OF RESERVOIR USER-GROUPS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 301-305. 1986. FR 33(2)
[Dep. Conserv. & Nat. Resour., Montgomery, AL 36130]

88-002391 Stephen, James L. EFFECTS OF COMMERICAL HARVEST ON THE FISH COMMUNITY OF LOVEWELL RESERVOIR, KANSAS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 211-217. 1986. FR 33(2)
[Fish Game Comm., 511 Cedar, Concordia, KS 66901] *Ictiobus cyprinellus, Cyprinus carpio, Carpoides carpio,* and *Aplodinotus grunniens* in Kansas.

88-002392 Turner, William M. EVALUATION OF THE STRIPED BASS X WHITE BASS HYBRID IN MONTROSE LAKE, MISSOURI. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 311-312. 1986. Abstract only. FR 33(2)
[Dep. Conserv., P.O. Box 180, Jefferson City, MO 65101] *Morone saxatilis* and *M. chrysops.*

88-002393 Van Den Avyle, Michael J. MEASURING ANGLER EFFORT, SUCCESS, AND HARVEST. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 57-64. 1986. FR 33(2)
[Coop. Fish Wildl. Res. Unit, School For. Resour., Univ. Ga., Athens 30602]

88-002394 Weithman, A. Stephen. MEASURING THE VALUE AND BENEFITS OF RESERVOIR FISHERIES PROGRAMS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 11-17. 1986. FR 33(2)
[Fish & Wildl. Res. Cent., Dep. Conserv., 1110 College Ave. Columbia, MO 65201]

88-002395 Willis, David W. REVIEW OF WATER LEVEL MANAGEMENT ON KANSAS RESERVOIRS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 110-114. 1986. FR 33(2)
[Fish Game Comm., P.O. Box 1525, Emporia, KS 66801] *Stizostedion vitreum, Pomoxis annularis, Morone chrysops,* and *Micropterus salmoides.*

88-002396 Zagar, Anthony J. and Donald J. Orth. EVALUATION OF HARVEST REGULATIONS FOR LARGEMOUTH BASS POPULATIONS IN RESERVOIRS: A COMPUTER SIMULATION. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 218-226. 1986. FR 33(2)
[Dep. Fish. & Wildl. Sci., VPI&SU, Blacksburg, VA 24061] *Micropterus salmoides.*

ESTUARY MANAGEMENT AND RESEARCH

88-002397 Davis, Timothy L. O. TEMPORAL CHANGES IN THE FISH FAUNA ENTERING A TIDAL SWAMP SYSTEM IN TROPICAL AUSTRALIA. *Environ. Biol. Fishes* 21(3):161-172. 1988. FR 33(2)
[Div. Fish. Res., CSIRO Mar. Lab., GPO Box 1538 Hobart, Tasm., Australia]

88-002398 Jones, N. V. and W. J. Wolff, editors. FEEDING AND SURVIVAL STRATEGIES OF ESTUARINE ORGANISMS. *Plenum Press* 304p. 1981. FR 33(2)
[Univ. Hull, Hull, England] Selected chapters indexed in this issue of *Fisheries Review*.

88-002399 Morton, Rick M.; John P. Beumer and Barry R. Pollock. FISHES OF A SUBTROPICAL AUSTRALIAN SALTMARSH AND THEIR PREDATION UPON MOSQUITOES. *Environ. Biol. Fishes* 21(3):185-194. 1988. FR 33(2)
[Fish. Manage. Branch, Queensland Dep. Primary Industries, G.P.O. Box 46, Brisbane, Qld. 4001, Australia] *Sillago maculata, Gambusia affinnis, Albula vulpes, Gerres ovatus, Pseudomugil signifer,* and *Valamugil georgii*.

88-002400 Wolff, W. J.; M. A. Mandos and A. J. J. Sandee. TIDAL MIGRATION OF PLAICE AND FLOUNDERS AS A FEEDING STRATEGY. *In: Feeding and Survival Strategies of Estuarine Organisms. N. V. Jones and W. J. Wolff, editors.* p. 159-171. 1981. FR 33(2)
[Res. Inst. Nat. Manage., P.O. Box 59, Texel, Netherlands] *Pleurnectes platessa* and *Pseudopleuronectes americanus* in North Atlantic Ocean.

MARINE MANAGEMENT AND RESEARCH

88-002401 Appeldoorn, Richard S.; George D. Dennis and Oscar Monterrosa Lopez. REVIEW OF SHARED DEMERSAL RESOURCES OF PUERTO RICO AND THE LESSER ANTILLES REGION. *FAO Fish. Rep.* No. 383. p. 36-106. 1987. FR 33(2)
[Dep. Mar. Sci., Univ. Puerto Rico, Mayaguez 00708]

88-002402 Arvizu-Martinez, Joaquin. FISHERIES ACTIVITIES IN THE GULF OF CALIFORNIA, MEXICO. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:32-36. 1987. In English with Spanish summ. FR 33(2)
[Cent. Interdiscipl. Cienc. Mar., 1PN, Apdo. Postal 592, 23000 La Paz, Baja Calif. Sur., Mexico]

88-002403 Bawazeer, A. S. THE FISHERY BIOLOGY AND MANAGEMENT OF THE STOCK OF CHIM, THE GIANT SEA CATFISH (*ARIUS THALASSINUS*) IN KUWAIT WATERS. *Kuwait Bull. Mar. Sci.* 1987(9):87-100. 1987. In English with Arabic summ. FR 33(2)
[Maricult. & Fish. Dep., Kuwait Inst. Sci. Res., Kuwait]

88-002404 Bawazeer, A. S. STOCK ASSESSMENT OF THE LARGETOOTHED FLOUNDER (KHOFFAH, *PSEUDORHOMBUS ARSIUS*) IN KUWAIT WATERS. *Kuwait Bull. Mar. Sci.* 1987(9):207-214. 1987. In English with Arabic summ. FR 33(2)
[Maricult. & Fish. Dep., Food Resour. Div., Kuwait Inst. Sci. Res., Kuwait]

88-002405 Berkeley, Steven A. THE DEVELOPMENT OF THE SWORDFISH FISHERY IN THE CARIBBEAN. *FAO Fish. Rep.* No. 383. p. 107-114. 1987. FR 33(2)
[South Atlantic Fish. Manage. Council, South Park Circle, Suite 306, Charleston, SC 29407] *Xiphias gladius*.

88-002406 Berkes, Fikret. THE COMMON PROPERTY RESOURCE PROBLEM AND THE FISHERIES OF BARBADOS AND JAMAICA. *Environ. Manage.* 11(2):225-235. 1987. FR 33(2)

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002406 CONTINUED
[Inst. Urban & Environ. Studies, Brock Univ., St. Catharines, ON, Canada L2S 3A1]

88-002407 Blomo, V. J. DYNAMIC AND SPATIAL WELFARE CHANGES FROM THE IMPACT OF MENHADEN FISHERY CONSERVATION PLANS ON THE US ATLANTIC COAST. *Environ. Plann. A* 20(1):111-118. 1988. FR 33(2)
[Dep. Econ., East Carolina Univ., Greenville, NC 27834] *Brevoortia tyrannus.*

88-002408 Brock, Richard E.; Raymond M. Buckley and Robert A. Grace. AN ARTIFICIAL REEF ENHANCEMENT PROGRAM FOR NEARSHORE HAWAIIAN WATERS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 317-336. 1986. FR 33(2)
[Inst. Mar. Biol. & Sea Grant Ext. Serv., Univ. Hawaii, Koneohe 96744]

88-002409 Bubier, Jill L. INTERNATIONAL MANAGEMENT OF ATLANTIC SALMON: EQUITABLE SHARING AND BUILDING CONSENSUS. *Ocean Dev. Int. Law* 19(1):35-57. 1988. FR 33(2)
[Mar. Law Inst., Univ. South. Maine, 246 Deering Ave., Portland 04102]

88-002410 Caddy, J. F. TYPES OF RESOURCE SHARING RELEVANT TO LESSER ANTILLES STOCKS. *FAO Fish. Rep.* No. 383. p. 115-124. 1987. FR 33(2)
[Fish. Dep., FAO, Terme di Caracalla, Rome, Italy 00100]

88-002411 Cicin-Sain, Biliana; Michael K. Orbach; Stephen J. Sellers and Enrique Manzanilla. CONFLICTUAL INTERDEPENDENCE: UNITED STATES-MEXICAN RELATIONS ON FISHERY RESOURCES. *Nat. Resour. J.* 26(4):769-792. 1986. FR 33(2)

88-002412 Clarke, Raymond D. CHANGE AND ORDER IN DETERMINING FISH-SPECIES COMPOSITION ON SMALL CORAL PATCHES. *J. Exp. Mar. Biol. Ecol.* 115(3):197-212. 1988. FR 33(2)
[Biol. Dep., Sarah Lawrence Coll., Bronxville, NY 10708]

88-002413 Cross, Jeffrey N. DEMERSAL FISHES OF THE UPPER CONTINENTAL SLOPE OFF SOUTHERN CALIFORNIA. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:155-167. 1987. FR 33(2)
[South. Calif. Coastal Water Res. Project, 646 W. Pac. Coast Hwy., Long Beach 90806]

88-002414 Diamond, Sandra L.; John P. Scholl and Doyle A. Hanan. DRIFT GILL NET OBSERVATIONS FOR THE 1985-86 FISHING SEASON. *U.S. Natl. Mar. Fish. Serv. Southwest. Region. Admin. Rep.* SWR 87-4. 29p. 1987. FR 33(2)
[Dep. Fish & Game, 1301 W. 12th St., Long Beach, CA 90813]

88-002415 Drinkwater, K. F. and R. A. Myers. TESTING PREDICTIONS OF MARINE INVERTEBRATES AND FISH STOCK LANDINGS FROM ENVIRONMENTAL VARIABLES. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 62. 1987. In English. FR 33(2)
[Mar. Fish Div., Bedford Inst. Oceanogr., P.O. Box 1006, Dartmouth, NS, Canada B2Y 4A2]

88-002416 Dukaro, Michael J.; Ronald C. Phillips and Roy R. Lewis, III, editors. PROCEEDINGS OF THE SYMPOSIUM ON SUBTROPICAL-TROPICAL SEAGRASSES OF THE SOUTHEASTERN UNITED STATES. *Fla. Mar. Res. Publ.* No. 42. 209p. 1987.

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002416 CONTINUED FR 33(2)
[Dep. Nat. Resour., Bur. Mar. Res., 100 Eigth Ave., S.E., St. Petersburg, FL 33701]
Selected chapters indexed in this issue of *Fisheries Review*.

88-002417 FAO of the UN. WESTERN CENTRAL ATLANTIC FISHERY COMMISSION: REPORT OF THE EXPERT CONSULTATION ON THE USE OF MICROCOMPUTERS FOR PROCESSING STATISTICAL AND BIOLOGICAL DATA. *FAO Fish. Rep.* No. 381. 27p. 1987. In English, French and Spanish. FR 33(2)

88-002418 FAO of the UN. REPORT OF THE SEVENTEENTH SESSION OF THE COMMITTEE ON FISHERIES, ROME, 18-22 MAY, 1987. *FAO Fish. Rep.* No. 387. 48p. 1987. FR 33(2)

88-002419 FAO of the UN. INDIAN OCEAN FISHERY COMMISSION: REPORT OF THE FOURTH SESSION OF THE COMMITTEE FOR THE DEVELOPMENT AND MANAGEMENT OF FISHERIES IN THE SOUTHWEST INDIAN OCEAN: ZANZIBAR, TANZANIA, 3-7 NOVEMBER 1986. *FAO Fish. Rep.* No. 380. 48p. 1987. In English and French. FR 33(2)

88-002420 FAO of the UN. REPORT OF THE EXPERT CONSULTATION ON TRAINING IN THE FISHERIES INVESTMENT PROJECT CYCLE, ROME, 24-26 NOVEMBER, 1986. *FAO Fish. Rep.* No. 378. 13p. 1987. FR 33(2)

88-002421 FAO of the UN. WESTERN CENTRAL ATLANTIC FISHERY COMMISSION: REPORT OF THE FOURTH SESSION OF THE WORKING PARTY ON FISHERY STATISTICS. *FAO Fish. Rep.* No. 384. 58p. 1987. In English, French and Spanish. FR 33(2)

88-002422 FAO of the UN. REPORT OF THE THIRTEENTH SESSION OF THE COORDINATING WORKING PARTY ON ATLANTIC FISHERY STATISTICS, ROME, ITALY, 11-18 FEBRUARY, 1987. FAO Fish. Rep. No. 379. 29p. 1987. FR33(2)

88-002423 FAO of the UN. INDIAN OCEAN FISHERY COMMISSION: REPORT OF THE NINTH SESSION OF THE COMMITTEE FOR THE MANAGEMENT OF INDIAN OCEAN TUNA, Colombo, Sri Lanka, 9-12 December, 1986. *FAO Fish. Rep.* No. 382. 94p. 1987. In English and French. FR 33(2)
Thunnus spp.

88-002424 Ferry, Roland E. and Christopher C. Kohler. EFFECTS OF TRAP FISHING ON FISH POPULATIONS INHABITING A FRINGING CORAL REEF. *N. Am. J. Fish. Manage.* 7(4):580-588. 1987. FR 33(2)
[Dep. Biol., Fla. Inst. Technol., Melbourne 32901]

88-002425 Gale, Richard P. FEDERAL MANAGEMENT OF FORESTS AND MARINE FISHERIES: A COMPARATIVE ANALYSIS OF RENEWABLE RESOURCE MANAGEMENT. *Nat. Resour. J.* 25(2):275-316. 1985. FR 33(2)
[Univ. Oreg., Eugene]

88-002426 Garrod, D. J. THE SCIENTIFIC ESSENTIALS OF FISHERIES MANAGEMENT AND REGULATIONS. *MAFF Dir. Fish. Res. Lab. Leafl. Lowestoft* No. 60. 15p. 1987. FR 33(2)

88-002427 Gavaris, S. and S. J. Smith. EFFECT OF ALLOCATION AND STRATIFICATION STRATEGIES ON PRECISION OF SURVEY ABUNDANCE ESTIMATES FOR ATLANTIC COD (*GADUS MORHUA*) ON THE EASTERN SCOTIAN SHELF. *J. Northwest Atl. Fish. Sci.* 7(2):137-144. 1987. FR 33(2)
[Dep. Fish. & Oceans, Biol. Sci. Branch, Biol. Stn., St. Andrews, NB, Canada E0G 2X0]

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002428 Grove, Robert S. and Choule J. Sonu. FISHING REEF PLANNING IN JAPAN. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 187-251. 1986. FR 33(2)
[South Calif. Edison Co., Rosemead 91770]

88-002429 Gulland, John A. STOCK ASSESSMENT IN TROPICAL FISHERIES: PAST AND PRESENT PRACTICES IN DEVELOPING COUNTRIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Phillip M. Roedel, editors.* p. 27-34. 1979. FR 33(2)

88-002430 Harding, D. and J. H. Nichols. PLANKTON SURVEYS OFF THE NORTH-EAST COAST OF ENGLAND IN 1976: AN INTRODUCTORY REPORT AND SUMMARY OF THE RESULTS. *Fish. Res. Tech. Rep. Minist. Agric. Fish. Food (Lowestoft)* No. 86. 56p. 1987. FR 33(2)

88-002431 Hernandez-Vazquez, Sergio. PELAGIC AND NERITIC FISHERIES OF THE WEST COAST OF BAJA CALIFORNIA, MEXICO. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:53-56. In Spanish with English summ. FR 33(2)
[Cent. Interdiscipl. Cienc. Mar., 1PN, Apdo. Postal593, 23000 La Paz, Baja Calif. Sur, Mexico]

88-002432 Hollowed, Anne Babcock; Kevin M. Bailey and Warren S. Wooster. PATTERNS IN RECRUITMENT OF MARINE FISHES IN THE NORTHEAST PACIFIC OCEAN. *Biol. Oceanogr.* 5(2):99-131. 1987. FR 33(2)
[Northwest & Alaska Fish. Cent., NMFS, NOAA, 7600 Sand Point Way NE, Seattle, WA 98115]

88-002433 Hongskul, Veravat. REPORT ON THE STUDIES OF MULTISPECIES SYSTEMS IN FISHERIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M Roedel, editors.* p. 173-182. 1979. FR 33(2)

88-002434 Houde, E. D.; S. Almatar; J. C. Leak and C. E. Dowd. ICHTHYOPLANKTON ABUNDANCE AND DIVERSITY IN THE WESTERN ARABIAN GULF. *Kuwait Bull. Mar. Sci.* 1986(8):107-393. 1986. In English with Arabic summ. FR 33(2)
[Chesapeake Biol. Lab., Univ. Md., P.O. Box 38, Solomons]

88-002435 Huato-Soberanis, Leonardo and Daniel Lluch-Belda. MESOSCALE CYCLES IN THE SERIES OF ENVIRONMENTAL INDICES RELATED TO THE SARDINE FISHERY IN THE GULF OF CALIFORNIA. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:128-134. 1987. In English with Spanish summ. FR 33(2)
[Cent. Interdiscipl. Cienc. Mar., 1PN, Apdo. Postal 592, 23000 La Paz, Baja Calif. Sur, Mexico]

88-002436 Hunte, Wayne. SUMMARY OF THE AVAILABLE DATA BASE ON OCEANIC PELAGIC FISHERIES IN THE LESSER ANTILLES. *FAO Fish. Rep.* No. 383. p. 125-176. 1987. FR 33(2)
[Bellairs Res. Inst., St. James, Barbados]

88-002437 International Pacific Halibut Commission. THE PACIFIC HALIBUT: BIOLOGY, FISHERY, AND MANAGEMENT. *Int. Pac. Halibut Comm. Tech. Rep.* No. 22. (Revision Nos. 6 and 16) 59p. 1987. FR 33(2)
[Int. Pac. Halibut Comm., P.O. Box 95009, Seattle, WA 98145-2009] *Hippoglossus stenolepis.*

88-002438 Jeesee, W. N.; J. W. Carter; A. L. Carpenter and E. E. DeMartini. DENSITY ESTIMATES OF FIVE WARM-TEMPERATE REEF FISHES ASSOCIATED WITH AN ARTIFICIAL `FEF, A NATURAL REEF, AND A KELP FOREST. *In: Artificial*

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002438 CONTINUED *Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 383-400. 1986. FR 33(2)
[1027 Blair Ave., Sunnyvale, CA 94087]

88-002439 Joseph, Daven C. FOREIGN FISHING ACTIVITIES IN THE LESSER ANTILLES AND OPTIONS FOR THE MANAGEMENT AND PROTECTION OF PELAGIC RESOURCES. *FAO Fish. Rep.* No. 383. p. 177-184. 1987. FR 33(2)
[OECS Fish. Desk, Kingstown, St. Vincent]

88-002440 Kawaguchi, Kouichi; Osamu Matsuda and Shingo Ishikawa. [THE MARINE BIOLOGICAL STUDY CARRIED OUT DURING THE 25TH JAPANESE ANTARCTIC RESEARCH EXPEDITION (1984/85) WITH SPECIAL REFERENCE TO THE BIOMASS-ORIENTED STUDY.] *Antarct. Rec.* 31(1):38-54. 1987. In Japanese with English summ. FR 33(2)
[Ocean Res. Inst., Univ. Tokyo, 15-1, Minamidai 1-chome, Nakano-ku, Tokyo 164, Japan]

88-002441 Kenchington, Trevor J. MANAGEMENT OF NEWLY-EXPLOITED FISH RESOURCES. *Oceans '87 Proc.* Vol. 3. p. 956-961. 1987. FR 33(2)
[CSIRO Div. Fish. Res., GPO Box 1538, Hobart, Tasm. 7001, Australia]

88-002442 Lavenberg, Robert J.; Andrew E. Jahn; Gerald E. McGowen and James H. Peterson. SAMPLING FOR EGGS OF SARDINE AND OTHER FISHES IN THE COASTAL ZONE USING THE CALVET NET. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:178-182. 1987. In English with Spanish summ. FR 33(2)
[Los Angeles Cty. Mus. Nat. Hist., Sect. Fishes, 900 Exposition Blvd., Los Angeles, CA 90007]

88-002443 Loomis, David K. and Robert B. Ditton. ANALYSIS OF MOTIVE AND PARTICIPATION DIFFERENCES BETWEEN SALTWATER SPORT AND TOURNAMENT FISHERMAN. *N. Am. J. Fish. Manage.* 7(4):482-487. 1987. FR 33(2)
[Agric. Exp. Stn., Tex. A&M Univ., College Station 77843]

88-002444 Loucks, R. H.; K. R. Thompson and R. W. Trites. SEA SURFACE TEMPERATURE PATTERNS IN THE NORTHWEST ATLANTIC. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 14. 1987. In English. FR 33(2)
[Loucks Oceanol., 24 Clayton Pk., Halifax, NS, Canada B3M 1L3]

88-002445 Mahon, Robin and Susan Mahon. SEASONALITY AND MIGRATION OF PELAGIC FISHES IN THE EASTERN CARIBBEAN. *FAO Fish. Rep.* No. 383. p. 192-193. 1987. FR 33(2)
[Bellairs Res. Inst., St. James, Barbados]

88-002446 Mahon, Robin. AN OVERVIEW OF THE MANAGEMENT OF SHARED STOCKS. *FAO Fish. Rep.* No. 383. p. 185-191. 1987. FR 33(2)
[Bellairs Res. Inst., St. James, Barbados]

88-002447 Mahon, Robin. THE PROBLEM OF ESTIMATING THE CURRENT SIZE OF YEAR-CLASSES RECRUITING TO COMMERCIAL FISHERIES. *Can. Tech. Rep. Fish. Aquat. Sci.* No. 1556. p. 5-13. 1987. In English with French summ. FR 33(2)
[Mar. Fish. Div., Bedford Inst. Oceanogr., P.O. Box 1006, Dartmouth, NS, Canada B2Y 4A2]

88-002448 Mahon, Robin, editor. REPORT AND PROCEEDINGS OF THE EXPERT CONSULTATION ON SHARED FISHERY RESOURCES OF THE LESSER ANTILLES REGION. *FAO Fish. Rep.* No. 383. 278p. 1987. FR 33(2)
[Bellairs Res. Inst., St. James, Barbados] Selected papers indexed in this issue of *Fisheries Review.*

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002449 Mapstone, B. D. and A. J. Fowler. RECRUITMENT AND THE STRUCTURE OF ASSEMBLAGES OF FISH ON CORAL REEFS. *Trends Ecol. Evol.* 3(3):72-77. 1988. FR 33(2)
[School Biol. Sci., Univ. Sydney, Sydney, N.S.W. 2006, Australia]

88-002450 Marshall, Nelson. FISHERY YIELDS OF CORAL REEFS AND ADJACENT SHALLOW-WATER ENVIRONMENTS. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 103-109. 1979. FR 33(2)

88-002451 Mathews, C. P. and M. Samuel. GROWTH, MORTALITY AND ASSESSMENTS FOR GROUPERS FROM KUWAIT. *Kuwait Bull. Mar. Sci.* 1987(9):173-191. 1987. In English with Arabic summ. FR 33(2)
[Maricult. & Fish. Dep., Kuwait Inst. Sci. Res., Kuwait] *Epinephelus tauvina, E. areolatus, E. jayakari, E. latifasciatus, E. chlorostigma, E. bleekeri,* and *Cephalopholis miniatus.*

88-002452 Mathews, Heyward. PHYSICAL AND GEOLOGICAL ASPECTS OF ARTIFICIAL REEF SITE SELECTION. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 141-148. 1986. FR 33(2)
[St. Petersburg Jr. Coll., Clearwater, FL 33575]

88-002453 McLaughlin, Richard J. CONFIDENTIAL CLASSIFICATION OF MULTI-BEAM BATHYMETRIC MAPPING OF THE U.S. EEZ: IS A NEW U.S. MARINE SCIENTIFIC RESEARCH POLICY IN ORDER? *Ocean Dev. Int. Law* 19(1):1-34. 1988. FR 33(2)
[Coastal & Mar. Law Res. Program, Sea Grant Consortium, Univ. Miss., University 38677]

88-002454 Merrett, N. R. A ZONE OF FAUNAL CHANGE IN ASSEMBLAGES OF ABYSSAL DEMERSAL FISH IN THE EASTERN NORTH ATLANTIC: A RESPONSE TO SEASONALITY IN PRODUCTION? *Biol. Oceanogr.* 5(2):137-151. 1987. FR 33(2)
[Inst. Oceanogr. Sci. (N.E.R.C.), Wormley, Godalming, Surrey, England]

88-002455 Morgan, Joseph R. LARGE MARINE ECOSYSTEMS: AN EMERGING CONCEPT OF REGIONAL MANAGEMENT. *Environment* 29(10):4-9, 29-34. 1987. FR 33(2)
[Geogr. Dep., Univ. Hawaii, Manoa]

88-002456 Moser, H. Geoffrey; Paul E. Smith and Lawrence E. Eber . LARVAL FISH ASSEMBLAGES IN THE CALIFORNIA CURRENT REGION, 1954-1960, A PERIOD OF DYNAMIC ENVIRONMENTAL CHANGE. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:97-127. 1987. In English with Spanish summ. FR 33(2)
[NMFS, Southwest Fish. Cent., P.O. Box 271, La Jolla, CA 92038]

88-002457 Mottet, Madelon Green. ENHANCEMENT OF THE MARINE ENVIRONMENT FOR FISHERIES AND AQUACULTURE IN JAPAN. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 13-112. 1986. FR 33(2)
[Japanese Sci. Liaison, 595 Tucker Ave., No. 39, Friday Harbor, WA 98250]

88-002458 Muhlia-Melo, Arturo. THE MEXICAN TUNA FISHERY. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:37-42. 1987. In English with Spanish summ. FR 33(2)
[Cent. Invest. Biol. Baja Calif. Sur, Apdo. Postal 128, 23000 La Paz, Baja Calif. Sur, Mexico] *Thunnus spp.*

88-002459 Myatt, DeWitt O., III. MIDWATER FISH ATTRACTORS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 303-315. 1986. FR 33(2)
[Int. Weighmaster Inc., Fort Lauderdale, FL 33309]

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002460 Pacific Fishery Management Council. PRESEASON REPORT II: ANALYSIS OF PROPOSED REGULATORY OPTIONS FOR 1988 OCEAN SALMON FISHERIES. *Pac. Fish. Manage. Council* 37p. 1988. FR 33(2)
[Metro Cent., Suite 420, 2000 S.W. First Ave., Portland, OR 97201] *Oncorhynchus kisutch*, and *O. tshawytscha*.

88-002461 Parrish, James D. APPROACHES TO SOME PROBLEM AREAS IN TROPICAL SMALL-SCALE FISHERIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 89-102. 1979. FR 33(2)

88-002462 Pauly, Daniel and Ma. Lourdes Palomares. SHRIMP CONSUMPTION BY FISH IN KUWAIT WATERS: A METHODOLOGY, PRELIMINARY RESULTS AND THEIR IMPLICATIONS FOR MANAGEMENT AND RESEARCH. *Kuwait Bull. Mar. Sci.* 1987(9):101-125. 1987. In English with Arabic summ. FR 33(2)
[Int. Cent. Living Aquat. Resour. Manage., MCC P.O. Box 1501, Makati, Metro Manila, Philippines]

88-002463 Pauly, Daniel. A NEW METHODOLOGY FOR RAPIDLY ACQUIRING BASIC INFORMATION ON TROPICAL FISH STOCKS: GROWTH, MORTALITY, AND STOCK RECRUITMENT RELATIONSHIPS. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 154-172. 1979. FR 33(2)

88-002464 Pollnac, Richard B. and Jon G. Sutinen. ECONOMIC, SOCIAL, AND CULTURAL ASPECTS OF STOCK ASSESSMENT FOR TROPICAL SMALL-SCALE FISHERIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 48-59. 1979. FR 33(2)

88-002465 Reddin, D. G. CONTRIBUTION OF NORTH AMERICAN ATLANTIC SALMON (*SALMO SALAR* L.) TO THE FAROESE FISHERY. *Nat. Can. (Que.)* 114(2):187-193. 1987. In English with French summ. FR 33(2)
[Sci. Branch, Dep. Fish. & Oceans, P.O. Box 5667, St. John's, NF, Canada A1C 5X1]

88-002466 Render, Jeffrey H. and Robert L. Allen. THE RELATIONSHIP BETWEEN LUNAR PHASE AND GULF BUTTERFISH, *PEPRILUS BURTI*, CATCH RATE. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):817-819. 1987. FR 33(2)
[Coastal Fish. Inst., La. State Univ., Baton Rouge 70803-7503]

88-002467 Robins, C. Richard. SMALL-SCALE FISHERIES - POLITICS AND UNFULFILLED PROMISE. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Phillip M. Roedel, editors.* p. 74-77. 1979. FR 33(2)

88-002468 Roesler, Collin S. and Dudley B. Chelton. ZOOPLANKTON VARIABILITY IN THE CALIFORNIA CURRENT, 1951-1982. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:59-86. In English with Spanish summ. 1987. FR 33(2)
[Coll. Oceanogr., Oreg. State Univ., Corvallis 97331]

88-002469 Saila, Saul B. SOME ENVIRONMENTAL CONSIDERATIONS FOR STOCK ASSESSMENT OF SMALL-SCALE FISHERIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 60-69. 1979. FR 33(2)

88-002470 Saila, Saul B. and Philip M. Roedel, editors. STOCK ASSESSMENT FOR TROPICAL SMALL-SCALE FISHERIES. *Int. Cent. Mar. Resour. Dev. (Univ. R.I.)* 198p. 1979. FR 33(2)
Individual chapters indexed in this issue of *Fisheries Review*.

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002471 Sale, Peter F. PERCEPTION, PATTERN, CHANCE AND THE STRUCTURE OF REEF FISH COMMUNITIES. *Environ. Biol. Fishes* 21(1):3-15. 1988. FR 33(2)
[Dep. Zool., Univ. N.H., Durham 03824]

88-002472 Samuel, M. and C. P. Mathews. GROWTH AND MORTALITY OF FOUR *ACANTHOPAGRUS* SPECIES. *Kuwait Bull. Mar. Sci.* 1987(9):159-171. 1987. In English with Arabic summ. FR 33(2)
[Maricult. & Fish. Dep., Kuwait Inst. Sci. Res., Kuwait] *Acanthopagrus cuvieri, A. latus, A. berda,* and *A. bisfasciatus* in Kuwait.

88-002473 Samuel, M.; C. P. Mathews and M. K. Baddar. STOCK ASSESSMENT OF HAMRAH *(LUTJANUS COCCINEUS)* AND HAMOOR *(EPINEPHELUS TAUVINA)* FROM THE ARABIAN GULF USING SURPLUS PRODUCTION AND DYNAMIC POOL MODELS. *Kuwait Bull. Mar. Sci.* 1987(9):195-206. 1987. In English with Arabic summ. FR 33(2)
[Maricult. & Fish. Dep., Kuwait Inst. Sci. Res., Kuwait]

88-002474 Schroeder, Robert E. EFFECTS OF PATCH REEF SIZE AND ISOLATION ON CORAL REEF FISH RECRUITMENT. *Pac. Sci.* 40(1-4):127-128. 1986. Abstract only. FR 33(2)
[Dep. Zool., Univ. Hawaii, Honolulu]

88-002475 Scott, J. S. MATRICES OF CO-OCCURRENCES OF FISH SPECIES ON THE SCOTIAN SHELF AND IN THE BAY OF FUNDY. *Can. Tech. Rep. Fish Aquat. Sci.* No. 1581. 54p. 1987. In English with French summ. FR 33(2)
[Biol. Stn., St. Andrews, NB, Canada E0G 2X0]

88-002476 Seaman, William, Jr. and Donald Y. Aska. THE FLORIDA REEF NETWORK: STRATEGIES TO ENHANCE USER BENEFITS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 545-561. 1986. FR 33(2)
[Sea Grant Coll. Prog. & School For. Resour. & Conserv., Univ. Fla., Gainesville 32611]

88-002477 Shaw, Susan and James F. Muir. SALMON: ECONOMICS AND MARKETING. *Timber Press (Oregon)* 270p. 1987. FR 33(2)
[Dep. Bus. & Manage., Univ. Stirling, Stirling, Scotland]

88-002478 Sheehy, Daniel J. NEW APPROACHES IN ARTIFICIAL REEF DESIGN AND APPLICATIONS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 253-263. 1986. FR 33(2)
[Aquabio, Inc., Annapolis, MD 21403-6130]

88-002479 Smith, Joseph W.; Eldon J. Levi; Douglas S. Vaughan and Ethel A. Hall. GULF MENHADEN, *BREVOORTIA PATRONUS,* PURSE SEINE FISHERY, 1974-85, WITH A BRIEF DISCUSSION OF AGE AND SIZE COMPOSITION OF THE LANDINGS. *NOAA Tech. Rep. NMFS* No. 60. 8p. 1987. FR 33(2)
[Southeast Fish. Cent., NMFS, NOAA, Beaufort, NC 28516-9722]

88-002480 Stull, Janet K.; Kelly A. Dryden and Paul A. Gregory. A HISTORICAL REVIEW OF FISHERIES STATISTICS AND ENVIRONMENTAL AND SOCIETAL INFLUENCES OFF THE PALOS VERDES PENINSULA, CALIFORNIA. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:135-154. 1987. In English with Spanish summ. FR 33(2)
[Los Angeles Cty. Sanit. Dist., P.O. Box 4998, Whittier, CA 90607]

88-002481 Thorne, Richard E. THE APPLICATION OF HYDROACOUSTICS TO STOCK ASSESSMENT FOR TROPICAL SMALL-SCALE FISHERIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 110-118. 1979. FR 33(2)

MARINE MANAGEMENT AND RESEARCH (CONTINUED)

88-002482 U.S. National Marine Fisheries Service. SOUTHEAST FISHERIES CENTER 1987 ANNUAL REPORT. *U.S. Natl. Mar. Fish. Serv. Southeast Fish. Cent. Annu. Rep.* 1987. 75p. 1987. FR 33(2)
[SEFC Headquarters, 75 Virginia Beach Dr., Miami, FL 33149]

88-002483 Vaughan, Douglas S. STOCK ASSESSMENT OF THE GULF MENHADEN, *BREVOORTIA PATRONUS*, FISHERY. *NOAA Tech. Rep. NMFS* No. 58. 18p. 1987. FR 33(2)
[Beaufort Lab., NMFS, NOAA, Beafort, NC 28516-9722]

88-002484 Waples, Robin S. A MULTISPECIES APPROACH TO THE ANALYSIS OF GENE FLOW IN MARINE SHORE FISHES. *Evolution* 41(2):385-400. 1987. FR 33(2)
[Alaska Fish. Cent., 2725 Montlake Blvd. E., Seattle, WA 98112]

88-002485 Wilimovsky, Norman J. PERSPECTIVES ON MINIMAL DATA REQUIREMENTS FOR AQUATIC RESOURCE MANAGEMENT IN DEVELOPING COUNTRIES. *In: Stock Assessment for Tropical Small-Scale Fisheries. Saul B. Saila and Philip M. Roedel, editors.* p. 78-86. 1979. FR 33(2)

88-002486 Wolf, Patricia; Paul E. Smith and Cheryl L. Scannell. THE RELATIVE MAGNITUDE OF THE 1986 PACIFIC SARDINE SPAWNING BIOMASS OFF CALIFORNIA. *Calif. Coop. Oceanic. Fish. Invest. Rep.* 28:21-26. 1987. In English with Spanish summ. FR 33(2)
[Dep. Fish & Game, 245 W. Broadway, Long Beach, CA 90802]

88-002487 Woodhead, P. M. J.; J. H. Parker; I. W. Duedall. THE USE OF BY-PRODUCTS FROM COAL COMBUSTION FOR ARTIFICIAL REEF CONSTRUCTION. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 265-292. 1986. FR 33(2)
[Mar. Sci. Res. Cent., SUNY, Stony Brook, NY 11794]

UTILIZATION OF FISHERY PRODUCTS

88-002488 Bertolotti, Maria I. and Emilio Manca. [(*ENGRAULIS ANCHOIA*) PROCESSING AND MARKETING IN THE ARGENTINE REPUBLIC.] *Rev. Invest. Desarrollo Pesq.* No. 5. p. 224-246. 1986. In Spanish with English summ. FR 33(2)
[INIDEP, C. C. 175, Codigo Postal 7600, Mar del Plata, Argentina]

88-002489 Cheng, Hsiang-tai and Oral Capps, Jr. DEMAND FOR DISAGGREGATE FISH AND SHELLFISH SPECIES IN THE UNITED STATES. *Va. Agric. Exp. Stn. Bull.* 87-2. 104p. 1987. FR 33(2)
[Dep. Agric. Econ., Univ. Ga., Exp. Stn., Experiment]

88-002490 Kennish, John M. and Jane F. Whitsett. APPLICATION OF MODERN ANALYTICAL METHODS TO THE EVALUATION OF SALMON QUALITY. *Alaska Sci. Conf.* 38:151. 1987. Abstract only. FR 33(2)
[Dep. Chem./Physics, Univ. Alaska, Anchorage]

88-002491 Kudo, George; Harold J. Barnett and Richard W. Nelson. FACTORS AFFECTING COOKED TEXTURE QUALITY OF PACIFIC WHITING, *MERLUCCIUS PRODUCTUS*, FILLETS WITH PARTICULAR EMPHASIS ON THE EFFECTS OF INFECTION BY THE MYXOSPOREANS *KUDOA PANIFORMIS* AND *K. THYRSITIS*. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):745-756. 1987. FR 33(2)
[Utilization Res. Div., Northwest & Alaska Fish. Cent., NMFS, NOAA, 2725 Montlake Blvd. E., Seattle, WA 98112]

UTILIZATION OF FISHERY PRODUCTS (CONTINUED)

88-002492 Perez-Villarreal, Begona and Peter Howgate. SPOILAGE OF EUROPEAN HAKE (*MERLUCCIUS MERLUCCIUS*) IN ICE. *J. Sci. Food Agric.* 41(4):335-350. 1987. FR 33(2)
[Res. Inst. Fish. Sci. & Technol., AZT1, AB, Sukarrieta, Bizkaia, Spain]

88-002493 Persson, Per-Edvin. MUDDY ODOUR IN FISH FROM HYPERTROPHIC WATERS. *In: Hypertrophic Ecosystems. J. Barica and L. R. Mur, editors.* p. 203-208. 1980. FR 33(2)
[Acad. Finland, Univ. Helsinki, Dep. Limnol., Viikki, SF-00710 Helsinki 71, Finland]

MISC. TECHNIQUES AND EQUIPMENT

88-002494 Able, K. W.; D. C. Twichell; C. B. Grimes and R. S. Jones. SIDESCAN SONAR AS A TOOL FOR DETECTION OF DEMERSAL FISH HABITATS. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):725-736. 1987. FR 33(2)
[Mar. Field Stn., Rutgers Univ., Tuckerton, NJ 08087] *Macrozoarces americanus, Lopholatilus chamaeleonticeps, Caulolatilus,* and *Brosme brosme.*

88-002495 Candle, Richard D. SCRAP TIRES AS ARTIFICIAL REEFS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 293-302. 1986. FR 33(2)
[Goodyear Tire & Rubber Co., Akron, OH 44311]

88-002496 Jorgensen, E. and M. Jobling. USE OF RADIOGRAPHIC METHODS IN FEEDING STUDIES: A CAUTIONARY NOTE. *J. Fish Biol.* 32(3):487-488. 1988. FR 33(2)
[Inst. Fisk., Univ. Tromso, 9001 Tromso, Norway] *Salvelinus alpinus.*

88-002497 Meier, Michael H.; James R. Martin and David L. Feigenbaum. ARTIFICIAL REEFS IN VIRGINIA: OLD BEGINNINGS AND NEW DIRECTIONS. *In: Artificial Reefs: Marine and Freshwater Applications. Frank M. D'Itri, editor.* p. 337-347. 1986. FR 33(2)
[Mar. Resour. Comm., Newport News, VA 23607-0756]

88-002498 Mulligan, Timothy J.; F. Douglas Martin; Richard A. Smucker and David A. Wright. A METHOD OF STOCK IDENTIFICATION BASED ON THE ELEMENTAL COMPOSITION OF STRIPED BASS *MORONE SAXATILIS* (WALBAUM) OTOLITHS. *J. Exp. Mar. Biol. Ecol.* 114(2,3):241-248. 1987. FR 33(2)
[Resour. Assess. & Conserv. Eng. Div., NMFS, NOAA, BIN C15700, Bldg. 4, 7600 Sand Point Way N.E., Seattle, WA 98115-0070]

88-002499 Siler, J. Robert. COMPARISONS OF ROTENONE AND TRAWLING METHODOLOGY FOR ESTIMATING THREADFIN SHAD POPULATIONS. *In: Reservoir Fisheries Management: Strategies for the 80's. Gordon E. Hall and Michael J. Van Den Avyle, editors.* p. 73-78. 1986. FR 33(2)
[Duke Power Co., Product. Environ. Serv., Rt. 4, Box 531, Huntersville, NC 28078] *Dorosoma petenense* in North Carolina.

88-002500 Yoklavich, Mary M. and George W. Boehlert. DAILY GROWTH INCREMENTS IN OTOLITHS OF JUVENILE BLACK ROCKFISH, *SEBASTES MELANOPS*: AN EVALUATION OF AUTORADIOGRAPHY AS A NEW METHOD OF VALIDATION. *U.S. Natl. Mar. Fish. Serv. Fish. Bull.* 85(4):826-832. 1987. FR 33(2)
[Northwest & Alaska Fish. Cent., NMFS, NOAA, 7600 Sand Point Way NE, BIN C15700, Seattle, WA 98115]

REVIEWS, BIBLIOGRAPHIES, ETC.

88-002501 FAO of the UN. FAO FISHERIES DEPARTMENT LIST OF PUBLICATIONS AND DOCUMENTS. *FAO Fish. Circ.* No. 100. (Rev.3, Suppl. 2). 74p. 1987. In English, French and Italian. FR 33(2)
[Via della Terme di Caracalla, 00100 Rome, Italy]

88-002502 FAO of the UN. ACTIVITIES OF INTERNATIONAL ORGANIZATIONS CONCERNED WITH FISHERIES. *FAO Fish. Circ.* No. 807. 22p. 1987. FR 33(2)
[Via della Terme di Caracalla, 00100 Rome, Italy]

88-002503 Seyedbagheri, Kathleen A.; Michael L. McHenry and William S. Platts. AN ANNOTATED BIBLIOGRAPHY OF THE HYDROLOGY AND FISHERY STUDIES OF THE SOUTH FORK SALMON RIVER. *U.S. For. Serv. Gen. Tech. Rep.* INT-235. 27p. 1987. FR 33(2)
[Intermountain Res. Stn., 324 25th St., Ogden, UT 84401]

88-002504 Zamora, Ma. Divina; William P. Gabuelo and Amelia T. Arisola. GROUPER ABSTRACTS. *Brackishwater Aquacult. Inf. Syst.* No. 8. 95p. 1987. FR 33(2)
[Brackishwater Aquacult. Inf. Syst., SEAFDEC Aquacult. Dep., Tigbauan, Iloilo, Philippines] *Epinephelus*.

MISCELLANEOUS

88-002505 Deacon, James E. THE ENDANGERED WOUNDFIN AND WATER MANAGEMENT IN THE VIRGIN RIVER, UTAH, ARIZONA, NEVADA. *Fisheries (Bull. Am. Fish. Soc.)* 13(1):18-24. 1988. FR 33(2)
[Univ. Nev., 4505 Maryland Pkwy., Las Vegas 89154] *Plagopterus argentissimus*.

88-002506 Hendrickson, Dean A. CONSERVATION STATUS OF DESERT PUPFISH, *CYPRINODON MACULARIUS*, IN MEXICO AND ARIZONA. *J. Ariz.-Nev. Acad. Sci.* 23:15-16. 1988. Abstract only. FR 33(2)
[Game & Fish Dep., Phoenix, AZ]

88-002507 Simons, Lee H. CONSERVATION OF THE GILA TOPMINNOW: SAVING DIVERSITY AT MULTIPLE LEVELS. *J. Ariz.-Nev. Acad. Sci.* 23:16. 1988. Abstract only. FR 33(2)
[Game & Fish Dep., Phoenix, AZ] *Poeciliopsis occidentalis occidentalis* in Arizona.

Abban, E. K.
88-001621
Abdallah, B.
88-001325
Abdul-Ameer, K. N.
88-001906
Abe, Y.
88-001290
Abel, D. C.
88-001514
Able, K. W.
88-002494
Aceituno, Michael E.
88-001793
Ackefors, Hans
88-001192
Adachi, M.
88-001207
Adamek, Zdenek
88-001807
Adams, Alexandra
88-001915
Adams, Michael A.
88-001373
Adams, William H.
88-001351
Adams, William J.
88-002100
Adoff, Grethe R.
88-001997
Affandi, R.
88-001374
Ahearn, Gregory A.
88-001476
88-001600
Ahrenholz, Dean W.
88-002176
Aida, Katsumi
88-001497
Ajdacic, N.
88-002096
Akai, A.
88-001208
Akenhead, Scott A.
88-001840
Akselman, Rut
88-001736
Al-Hassan, Jassim M.
88-001841
Al-Jafery, A. R.
88-001906
Al-Khalifah, Abdulrhman Salih
88-001375
Albaiges, J.
88-002040
Albeit, Paul S.
88-002342
Albert-Nemitzov, Lisa M.
88-001864
Aldrin, J. F.
88-001457
Alespeiti, Gabriel
88-001825
Alevizon, William S.
88-001795
Alfaro, A.
88-001316
Ali, Mohamed Ather
88-001376
Ali, N. M.
88-001906
Allan, J. David
88-002300
Allen, John L.
88-001377
88-002041
Allen, Ken O.
88-001727
Allen, Michael S.
88-001347
Allen, Robert L.
88-002466
Allendorf, Fred W.
88-001628
88-001636
Almar, M. M.
88-002072
Almatar, S.
88-002434
Altfater, David J.
88-002031
Amano, Takayuki
88-001271
Amato, J. F. R.
88-001969
Amemiya, C. T.
88-001633
Amson, Jonathan E.
88-002136
Anders, K.
88-001911
Andersen, Darell L.
88-002169
Andersen, John L.
88-002340
Anderson, Anne A.
88-001654
Anderson, Ian G.
88-001278
Anderson, Jon W.
88-002276
Anderson, Lee G.
88-002137
Andersson, G.
88-002261
Andreu, E.
88-002072
Andriyasheva, M. A.
88-001622
Anganuzzi, Alejandro
88-001378
Angelescu, Victor
88-001378
Antai, E. E.
88-001912
Anthouard, Michel
88-001655
Aoe, Hiroshi
88-001271
Aoki, Ichiro
88-001656
Appelbaum, S.
88-001687
Appeldoorn, Richard S.
88-002401
Arai, Shigeru
88-001572
Araujo, Teresa M. H.
88-001306
Archer, S. N.
88-001546
Arisola, Amelia T.
88-002504
Armstrong, Michael
88-001270
Arnold, C. R.
88-001569
88-001570
Arvizu-Martinez, Joaquin
88-002402
Aska, Donald Y.
88-002476

Astrauskas, Andrjus
88-001743
Atanassov, Christo L.
88-001379
Atema, Jelle
88-001380
88-001662
Ather Ali, M.
88-001324
Atlas, E. L.
88-002017
Auffret, M.
88-001954
Austin, B.
88-001534
88-001916
Austin, D. A.
88-001916
Avanzino, R. J.
88-002344
Averill, Philip H.
88-002196
Avila, Enrique M.
88-001381
88-001580
Avnimelech, Yoram
88-001193
Back, H.
88-002060
Badcock, J.
88-001873
Badcock, Julian
88-001306
Baddar, M. K.
88-001737
88-002473
Bader, Andrew P.
88-002276
Baggs, E. M.
88-001776
Bagliniere, J. L.
88-001307
Bailey, George
88-002042
Bailey, Kevin M.
88-002432
Bain, Mark B.
88-002211
Baker, B.
88-002234
Baker, B. I.
88-001558
Baker, J. A.
88-002301
Bakker, Th. C. M.
88-001623
Baksi, S. M.
88-001624
Balci, A.
88-002043
Baldevarona, Rodolfo Bermudo
88-001822
Baltodano, J.
88-001632
Balushkin, A. V.
88-001874
Banerjee, R. K.
88-001194
Baran Das, Asit
88-001562
Barat, S.
88-001243
Barber, W. E.
88-001308
Barekyan, A. Sh.
88-001725
Barger, Lyman E.
88-001828
Barica, J.
88-001302
Barja, Juan L.
88-001935
Barnett, Harold J.
88-002491
Barnhart, Roger A.
88-001738
Barnung, Trygg N.
88-001998
88-002008
Barry, T.
88-001639
Bartell, Steven M.
88-002216
88-002307
Barton, Bruce A.
88-001382
Basaglia, Fulvia
88-001383
Bastide-Guillaume, C.
88-001962
Bath, Hans
88-001875
Baudin-Laurencin, F.
88-001933
88-001954
Baugh, Thomas M.
88-001384
88-001739
Baumann, Paul C.
88-001999
Bawazeer, A. S.
88-002403
88-002404
Baxter, Dennis S.
88-001234
Bayley, Peter B.
88-001842
Bayne, C. J.
88-001445
Bazata, Kenneth R.
88-002169
Beacham, Jeffery L.
88-001657
Beamish, F. W. H.
88-001385
Becker, A. J., Jr.
88-001386
Beckman, Daniel W.
88-002192
Bedi, Nilam
88-002138
Beem, Marley D.
88-001195
Behrens Yamada, S.
88-002188
Beitinger, T. L.
88-002052
Bel, Julius
88-001402
Belanger, Scott E.
88-001309
Belkhir, M.
88-002044
Bell, Melvin
88-002497
Belmonte, P.
88-001703
Belusz, Lawrence C.
88-002350
Bemis, W. E.
88-001387
Ben-Tuvia, Adam
88-001876

Bender, John F.
88-002343
Benecke, Norbert
88-001310
Benfield, E. F.
88-002321
Benfield, Ernest F.
88-002335
Bengeri, K. V.
88-002045
Bennett, J. R.
88-002266
Bergersen, Eric P.
88-002182
Berglund, Anders
88-001658
Bergren, Joanne
88-001311
Berkeley, Steven A.
88-002405
Berkes, Fikret
88-002262
88-002406
Berman, Carl R., Jr.
88-002212
Berman, R. A.
88-002059
Bernard, M. G.
88-001593
Berndtson, Amy K.
88-001388
Bertacchi, P. L.
88-001501
Bertolini, J.
88-001512
Bertolotti, Maria I.
88-002488
Besse, Colette
88-001433
Bettger, W. J.
88-002082
Beulig, A.
88-001688
Beumer, John P.
88-002399
Bevan, David J.
88-001823
Bezrukov, V. F.
88-001625
Bhattacharya, Shelley
88-002046
Bhattacharya, Tapati
88-002046
Biagianti, S.
88-001374
88-001971
Bianco, P. G.
88-001626
Biener, William E.
88-002282
Bienert, Raymond William, Jr.
88-002263
Bilby, Robert E.
88-002302
Bills, Terry D.
88-002120
Bilo, D.
88-001675
Binder, Robert L.
88-001528
Bingham, C. R.
88-002301
Binkowski, Fred P.
88-002264
Binkowski, Frederick P.
88-001817
Biro, P.
88-001303
Bishop, Richard C.
88-002265
Bisson, Peter A.
88-002302
Bjorklund, Ingvar
88-002074
Black, D.
88-001389
Black, John J.
88-002047
Black, Robert W.
88-002245
Bladimirtsev, V. B.
88-001853
Blake, R. W.
88-002230
Blaxter, J. H. S.
88-001602
Blaxter, John H. S.
88-001659
Blazer, Vicki S.
88-001916
88-002013
Bleckmann, Horst
88-001660
Bleher, Heiko
88-001843
Blickhen, R.
88-001675
Bliss, Quentin P.
88-002313
Blomo, V. J.
88-002407
Blonder, Barbara I.
88-001795
Blum, Stanley D.
88-001312
Blumhagen, Karen A.
88-002081
Boeger, Walter A.
88-001963
Boehlert, G. W.
88-001746
Boehlert, George W.
88-002500
Boese, Bruce L.
88-001390
Bogdanowicz, S. M.
88-001635
Bohac, Charles E.
88-002386
Bohlin, Torgny
88-002213
Bohr, Joe R.
88-002286
Bolinches, J.
88-001273
Bolinches, Jorge
88-001941
Bonebrake, Bruce L.
88-002319
Booman, Clelia Isabel
88-001845
Booth, David J.
88-001756
Borisovets, E. E.
88-002214
Bornbusch, Alan H.
88-001313
Bornemisza, Albert
88-002218
Borseth, Jan Fredrik
88-002000
Botev, Botyo A.
88-001379

Bourke, Robert
88-001964
Boutilier, Robert G.
88-001596
Bowen, L.
88-001695
Bowering, W. R.
88-001740
Bowlby, J. N.
88-001332
Boxrucker, Jeff
88-002351
Boyce, F. M.
88-002266
Boyd, Claude E.
88-001274
88-002061
Boyle, J. A.
88-001936
Boyle, Kevin J.
88-002265
Boyle, Terence P.
88-002007
Bracken, J. J.
88-001643
88-002320
Bradshaw, H. David
88-002303
Brand, Joseph G.
88-001391
Brandt, Stephen B.
88-001661
Brandt, T. M.
88-001294
88-001523
Brandt, Thomas M.
88-001244
Brannas, Eva
88-001392
Branson, Jim H.
88-002139
Brazo, Dan C.
88-002286
Breck, James E.
88-002215
88-002216
Brem, G.
88-001627
Brenig, B.
88-001627
Brenner, T.
88-001741
Bres, Odd
88-001393
Briassoulis, Helen
88-002001
Bridges, C. R.
88-001549
Bridges, Christopher Robert
88-001394
Brill, Richard W.
88-001964
Brinson, Mark M.
88-002303
Brito, A.
88-001900
Broberg, Ola
88-002267
Brock, James A.
88-001964
Brock, Richard E.
88-002408
Bromage, N. R.
88-001413
Bromage, Niall
88-001209
Brooker, M. P.
88-001751
Brooks, J. M.
88-002017
Brothers, Edward B.
88-001314
88-001824
Brouha, Paul
88-002289
Brown, Allen M.
88-002352
Brown, C. R.
88-001395
Brown, D. W.
88-002095
Brown, Donald W.
88-002098
Brown, J. A.
88-001681
Brown, Lewis R.
88-001286
Brown, Tommy L.
88-002268
Bruno, D. W.
88-001315
88-001943
Brunson, Martin W.
88-001396
Bruss, Rainer
88-001877
88-001878
Bryan, C. E.
88-002154
Bryan, C. Fred
88-002348
Bryant, Bruce P.
88-001391
88-001617
88-001662
Bubier, Jill L.
88-002409
Bucke, D.
88-001946
Buckler, Denny R.
88-002100
Buckley, Raymond M.
88-002168
88-002408
Buhler, Donald R.
88-002048
Bulger, A. J.
88-002217
Bullis, Robert A.
88-001931
Bullock, G. L.
88-001917
Bunde, Carolyn Jean Wilson
88-001397
Burger, G.
88-001398
Burgess, Warren E.
88-001879
Burkhardt, Patricia
88-001580
Burrows, A. S.
88-001399
Burton, D.
88-001400
Burton, Thomas M.
88-002304
Busack, Craig A.
88-001844
Busch, Robert L.
88-001252
Bussing, William A.
88-001880

Butler, David G.
88-001401
Butler, John
88-001836
Buttiker, Bernard
88-001402
Byrne, Charles J.
88-002197
Cabana, Gilbert
88-001707
Cabrera, J.
88-001316
Cada, Glenn F.
88-002311
Caddy, J. F.
88-002410
Cagan, Robert H.
88-001391
88-001617
Cairns, John, Jr.
88-002049
88-002335
88-002337
Callard, Ian P.
88-001589
Callegarini, Carlo
88-001383
Callman, Josh
88-002039
Calow, P.
88-001403
Camacho, Arsenio
88-001245
Camacho, Arsenio S.
88-001196
Cameron, J. N.
88-001395
Cameron, James N.
88-001466
Cameron, Patricia
88-002130
Campbell, Clay
88-001317
Campos, Jorge
88-002218
Campton, Donald E.
88-001404
Cancino, Juan M.
88-001663
Candle, Richard D.
88-002495
Canovas, Manuel
88-002050
Capps, Oral, Jr.
88-002489
Caprio, J.
88-001336
88-001520
Caprio, John
88-001405
Capuzzo, Judith McDowell
88-002051
Cardoso, R. de D.
88-001484
Carlaw, D.
88-002002
Carline, Robert F.
88-002353
Carlos, Manuel H.
88-001246
Carlson, Charles P.
88-001931
Carney, Heath Joseph
88-002193
Caron, F.
88-001796
Carpenter, A. L.
88-002438
Carpenter, Kent
88-001881
Carr, H. Arnold
88-002196
88-002198
Carreto, Jose I.
88-001736
Carrier, Roxie
88-002052
Carter, C. A.
88-001406
Carter, J. W.
88-002438
Carter, Jacque
88-001664
Carter, James L.
88-002119
Carter, John S.
88-002028
Carter, Ray R.
88-001727
Carter, Stephen R.
88-002169
Carvalho-Varela, M.
88-001965
Casselman, J. M.
88-001332
Cassia, Maria Cristina
88-001845
Castilla, Juan C.
88-001663
Castric, J.
88-001954
Cataldi, E.
88-001318
Cataudella, S.
88-001318
Cavender, Ted. M.
88-001882
Cawdery, S.
88-001643
Cech, Joseph J., Jr.
88-001606
Ceschia, Giuseppe
88-001934
Chadwick, James W.
88-002199
Chagnon, Norman L.
88-002053
Chagnon, Norman Lee
88-002003
Chambers, M. R.
88-002269
Chan, S.-L.
88-002095
Chan, Sin-Lam
88-002098
Chapman, Duane C.
88-001407
Chapman, Wayne R.
88-002388
Charbonneau, J. J.
88-002358
Chari, N.
88-001449
Charlton, M. N.
88-002266
Chaudhuri, Kripasindhu
88-002219
Chauhan, R. S.
88-001966
Chavez-Martinez, Cristina
88-001287
Chelton, Dudley B.
88-002468

Chen, Chan-fu
88-001924
Cheng, Hsiang-tai
88-002489
Cheng, Kimberly M.
88-001210
88-001524
Cherry, Donald S.
88-001309
Chervinski, Jonathan
88-001846
Chevalier, Robert
88-002220
Chevassus, B.
88-001398
Chilson, P. K.
88-001386
Chiu, Tai-Sheng
88-001883
Christensen, Niels Juel
88-001597
Christensen, Sigurd W.
88-002215
Christiansen, Haraldo E.
88-001408
Chu Xinluo
88-001905
Cicin-Sain, Biliana
88-002411
Clark, Kathryn
88-002054
Clark, Robert C., Jr.
88-002098
Clark, Tom
88-002054
Clarke, M. E.
88-001746
Clarke, Raymond.D.
88-002412
Clarke, W. Craig
88-001409
Clasen, J.
88-001741
Claybrook, Les
88-001270
Clayton, David A.
88-001841
Cleland, Glenn B.
88-002055
88-002056
Clem, L. W.
88-001512
Clevenger, Thomas V.
88-002389
Clifton-Hadley, R. S.
88-001946
Clugston, James P.
88-002379
Coad, Brian W.
88-001847
Coates, Thomas
88-001661
Cobb, Marci
88-002155
Coblentz, Bruce E.
88-001665
Coburn, Miles M.
88-001882
Coceancic, D. E.
88-002094
Cockell, K. A.
88-002057
Colby, Peter J.
88-001768
Cole, Richard
88-002221
Collier, Tracy K.
88-002058
Collin, Jean-Pierre
88-001433
Collins, Mark R.
88-001410
Collins, Nicholas C.
88-001707
Collopy, Michael W.
88-001267
Colura, Robert L.
88-001275
88-001464
Colvin, Michael A.
88-002222
Compagno, Leonard J. V.
88-001884
Cone, David K.
88-001953
Congdon, James C.
88-002177
Conley, Kenneth C.
88-001747
Conroy, A. M.
88-001544
Conte, G.
88-001318
Cook, Mark F.
88-002199
88-002223
Coombs, Sheryl
88-001319
Cooper, C. G.
88-002200
Cooper, C. M.
88-001857
Cooper, C. W.
88-001496
Cooper, J.
88-001819
Cooper, L. John
88-002338
Cooper, Richard A.
88-002198
Corbett, Wayne T.
88-001931
Cornelius, Scott D.
88-002282
Cornell, V.
88-001897
Cossins, Andrew R.
88-001339
Costa, Wilson J. E. M.
88-001797
Couch, John A.
88-002083
Couillard, C. M.
88-002059
Courtney, Lee A.
88-002083
Cousin, J. C. B.
88-001320
Cousseau, Maria B.
88-001408
Coustans, M. F.
88-001954
Cowan, G. I. McT.
88-001776
Cox, Mardi
88-001557
Coyle, James J.
88-002100
Crawford, Steve
88-002270
Crawford, Tommie
88-002354

Crespo, Silvia
88-001321
Cribb, T. H.
88-001967
Criddle, Richard S.
88-001841
Crim, J. W.
88-001411
Crim, Laurence W.
88-001412
Crivelli, Alain J.
88-001742
Crocker, Thomas D.
88-002258
Crosetti, D.
88-001318
Cross, Frank B.
88-001634
Cross, Jeffrey N.
88-002413
Cross, Melvin L.
88-002224
Cruz E Silva, M. Paula
88-001603
Cruz, Cristina
88-001907
Cruz, Erlinda R.
88-001930
Cumbie, Peter M.
88-002028
Cunha-Ferreira, V.
88-001965
Cunjak, Richard A.
88-001785
Curr, C. T. W.
88-002149
Cycon, Dean E.
88-002140
Cyr, D.
88-001393
Cyr, D. G.
88-001413
Cyr, Daniel G.
88-001414
Czeczuga, B.
88-001415
D'Abramo, Louis R.
88-001252
D'Itri, Frank M.
88-002141
D'Ottone D., Eduardo
88-002240
D'Ovidio, D.
88-001318
Dabrowski, K.
88-001415
88-002225
Dadzie, S.
88-001712
Daikoku, Toshiko
88-001416
88-001572
Dailey, Murray D.
88-001964
Dallinger, R.
88-002060
Dalsgaard, I.
88-001910
Danehy, Robert J.
88-002276
Daniels, Harry V.
88-001274
88-002061
Daniels, William H.
88-001264
Danilchenko, O. P.
88-002076
Danton, Michele
88-001956
Danulat, Eva
88-001283
Danzmann, Roy G.
88-001417
88-001628
88-001629
Darnell, R. M.
88-001765
Das, C. C.
88-001650
Das, K. M.
88-002112
Dashti, J.
88-002206
David, Martin H.
88-002170
Davidson, Mary L.
88-002063
Davie, P. S.
88-001440
Davis, Donald A.
88-001418
Davis, Kenneth B.
88-001419
Davis, M. H.
88-002036
Davis, Nancy D.
88-002181
Davis, Timothy L. O.
88-002397
Davis, William P.
88-002062
Davison, W.
88-001440
88-001972
Dawson, Verdel K.
88-001377
de Ciechomski, Juana D.
88-001786
88-001825
De Graeve, G. M.
88-002100
de Kinkelin, P.
88-001955
88-001960
de la Cruz, Armando A.
88-002063
De la Noue, J.
88-001296
de Rooij, N. M.
88-002271
De Souza, J. Henrique
88-001258
Deacon, James E.
88-001384
88-002505
Dean, John Mark
88-002192
DeAngelis, Donald L.
88-002215
Deegan, Linda A.
88-001826
Degan, Donald J.
88-002028
Deguchi, Yoshiaki
88-001592
Dehring, Terrence R.
88-002226
88-002283
88-002284
Deitner, Robert
88-002221
Delbeek, J. C.
88-001666

Dellefors, Claes
88-002213
DeMartini, E. E.
88-002438
DeMartini, Edward E.
88-001420
Dempsey, C. H.
88-002036
Dempster, Robert P.
88-001968
Deneer, J. W.
88-002064
Dennis, George D.
88-002401
Denoncourt, Robert
88-001820
88-002305
Dent, Ronald J., Jr.
88-002355
88-002356
88-002385
Denton, Eric J.
88-001421
DeOliveira, Evaldete F.
88-001969
Deshpande, Anant Venkatrao
88-001422
Dethlefsen, Volkert
88-002004
88-002130
Dgebuadze, Yu. Yu.
88-002214
Dheer, J. M. S.
88-001423
Diamant, A.
88-001970
Diamond, Sandra L.
88-002414
Diana, James S.
88-002227
Dick, Gary Owen
88-001667
Dickhoff, W. W.
88-001593
Dickson, K. A.
88-001601
Dickson, Kathryn A.
88-001424
Dickson, Kenneth L.
88-002337
Dieffenbach, William H.
88-002385
Dimmick, Walter W.
88-001322
Ditton, Robert B.
88-002443
Divanach, P.
88-001285
Dixon, D. G.
88-002086
88-002103
Dochoda, Margaret Ross
88-002272
88-002273
Dodson, J. J.
88-001532
88-001835
Doerzbacher, J. F.
88-002228
Doggett, T. A.
88-001459
Donald, D. B.
88-001757
Donaldson, Edward M.
88-001425
Donnelly, Dennis M.
88-002160
Dopazo, Carlos P.
88-001935
Dore, F. Y.
88-001532
Dorfman, Donald
88-001323
Dorough, Wayne G.
88-002340
Dorr, John A., III
88-002292
Dorson, M.
88-001955
Doucette, Albert J., Jr.
88-001630
Douellou, L.
88-001562
Douglas, David R.
88-001691
88-001787
Dowd, C. E.
88-002434
Down, N. E.
88-001425
88-001426
Dreadon, David J.
88-001347
Drinkwater, K. F.
88-001758
88-002415
Drost, M. R.
88-001346
Dryden, Kelly A.
88-002480
Du Preez, Hein H.
88-001427
DuBose, William P., IV
88-002158
Dudley, Daniel R.
88-001702
Duedall, I. W.
88-002487
Duffield, Daniel J.
88-001803
Duffy, D. C.
88-001819
Duffy, David Cameron
88-002229
Dulmaa, Ajuuryn
88-001753
Dunbrack, R. LeB.
88-001428
Dunham, R. A.
88-001631
Dunkerly, Susan J.
88-001489
Dunn, Jeff
88-001487
Dunning, Dennis J.
88-002189
Durako, Michael J.
88-002416
Duran, A.
88-001944
Durand, Patrick
88-001402
Durocher, Philip P.
88-002376
Duston, J.
88-001413
Duston, James
88-001209
Dutil, J.-D.
88-001835
Dutil, Jean-Denis
88-001376
Dutta, H. M.
88-002115

Dutta, Hiran M.
88-001475
88-002116
Dwyer, William P.
88-001211
Dye, Helen M.
88-001425
Eakin, Richard R.
88-001885
Eales, J. G.
88-001393
88-001413
88-001414
88-001467
88-001517
Eber, Lawrence E.
88-002456
Eckmann, Reiner
88-001429
Eder, Stephen
88-001759
Edney, Norris Allen
88-002349
Edsall, Donald A.
88-001223
Edsall, T. A.
88-002005
Egidius, E.
88-001273
Egidius, Emmy
88-001918
Eiras, J. C.
88-001907
Eisler, Ronald
88-002065
88-002107
El Naggar, G. O.
88-001265
El-Amayem, M. A.
88-002069
El-Rayis, O. A.-M.
88-002066
88-002067
88-002068
El-Sebae, A. H.
88-002069
El-Shinawy, Rifaat M. K.
88-001489
Elliott, J. M.
88-001827
Elwood, J. W.
88-002306
Emmett, Robert L.
88-001809
Endler, John A.
88-001668
Endo, Toshio
88-001938
Enell, Magnus
88-001197
Engle, Carole R.
88-001247
Epperly, Sheryan P.
88-002176
Erasmus, T.
88-001695
Erdahl, David
88-001430
Eriksson, Lars-Ove
88-001212
88-001213
88-001241
88-001431
88-001669
Eriksson, Torleif
88-001276
Ermokhin, V. Ya.
88-002214
Erzini, Karim
88-002249
Es-Sounni, A.
88-001324
Eshenroder, R. L.
88-002005
Eshenroder, Randy L.
88-002274
Estes, William M.
88-001848
Euston, E. Terry
88-001788
Euston, Terry
88-002305
Euzen, O.
88-001798
Evans, Geoffry T.
88-002247
Evans, Marlene S.
88-002006
Ezura, Yoshio
88-001937
Ezzat, A. A.
88-002067
88-002068
Fable, William A., Jr.
88-001828
Fabrizio, Mary C.
88-002178
Facey, Douglas Edward
88-001432
Fadeev, N. S.
88-001760
Fagen, Robert
88-002142
Fairchild, G. Winfield
88-002019
Fairchild, James F.
88-002007
Falcon, Jacky
88-001433
Faliex, E.
88-001971
Falk-Petersen, Inger-Britt
88-002070
Falkowski, S.
88-001415
FAO of the UN
88-002071
88-002417
88-002418
88-002419
88-002420
88-002421
88-002422
88-002423
88-002501
88-002502
Farbridge, K. J.
88-001434
Faremo, Ulo
88-002213
Faris, Ahmed
88-001923
Farquhar, Bobby W.
88-001248
Farran, A.
88-002040
Farrell, James R.
88-002171
Faucette, Ray F., Jr.
88-001251
Fay, Richard R.
88-001380

...CONTINUED...
Fay, Richard R.
88-001435
Fedkiw, John
88-002275
Fedulina, V. N.
88-001503
Feigenbaum, David L.
88-002497
Ferguson, A.
88-001643
Ferguson, Moira M.
88-001417
88-001628
88-001629
Fernald, Russell D.
88-001436
Fernandez, H. R. C.
88-001325
Fernando, C. H.
88-001818
Ferno, Anders
88-001670
Ferrando, M. D.
88-002072
Ferry, Roland E.
88-002424
Fetterolf, Carlos M., Jr.
88-002272
Feuth-De Bruijn, E.
88-001623
Fialkov, V. A.
88-001784
Field-Dodgson, M. S.
88-001297
88-001799
Fielder, Donald R.
88-001446
Filin, A. A.
88-001522
Filipek, Stephen P.
88-002357
Fine, Michael L.
88-001326
Finger, Thomas E.
88-001437
88-001617
Fink, Keith M.
88-001359
Fischer, Eric A.
88-001671
Fisher, J. P.
88-001789
Fisher, Warren L.
88-002358
FitzGerald, G. J.
88-001672
88-002259
Fitzhardinge, Rachel
88-001673
Fitzpatrick, Patricia
88-001384
Fitzsimons, J. Michael
88-001630
Fleming, J. M.
88-002036
Fletcher, Douglas H.
88-002201
Fletcher, T. C.
88-001399
Flickinger, Stephen A.
88-001244
Flood, Per R.
88-001438
Flory, C. M.
88-001439
Foley, Robert E.
88-002013
Folke, Carl
88-002179
Follett, W. I.
88-001886
Fontaine, Thomas D. III
88-002307
Foott, J. S.
88-001947
Forbes, Anne M.
88-002325
Foreman, Terry
88-002190
Forest, C. L.
88-001334
Foris, William J.
88-002387
Forrester, J. R. S.
88-002197
Forster, M. E.
88-001440
Fortier, Lyne
88-001376
Fott, Jan
88-001249
Fowler, A. J.
88-002449
Fowler, Laurie G.
88-001382
Fox, D. D.
88-001272
Fraboni, Peter J.
88-001441
Frank, Ken T.
88-001769
Franklin, C. E.
88-001972
Fraser, C. O.
88-001315
Fraser, Robert A.
88-001490
Freeman, Harry C.
88-001575
Fremont, Lucie
88-001566
88-001567
Frey, Jennifer K.
88-001349
Fricke, Diethard
88-001674
Frith, H. R.
88-001442
Fritz, Arnold W.
88-002359
Fujihara, Yoshizo
88-001919
Fujio, Yoshihisa
88-001638
Fujise, M.
88-001220
Fukuda, H.
88-001913
Fukui, Haruo
88-001919
Fullerton, E. Charles
88-002143
Furuta, Mariko
88-001592
Fuss, Howard
88-001214
Fyhn, Hans Jorgen
88-001443
88-002008
88-002024
Gabuelo, William P.
88-002504
Gacutan, Rogelio Q.
88-001927

Gajdusek, Josef
88-001743
88-002191
Gale, Richard P.
88-002144
88-002425
Gall, G. A. E.
88-001632
Gall, Graham A. E.
88-001404
Gallagher, Margie Lee
88-001444
Gallant, Alisa L.
88-001702
Galle, M.
88-001675
Gallifa, A.
88-002040
Galvan Cruz, Reyna
88-001287
Galvan, I. S.
88-001445
Gama Pereira, Teresa
88-001958
Gambaryan, S. P.
88-001327
Gannon, F.
88-001639
Gannon, John E.
88-001661
88-002013
88-002276
Garatun-Tjeldsto, Oddvard
88-001284
Garavelli, Ron J.
88-001844
Garcia, Luis Maria B.
88-001250
Gardner, A. S.
88-001370
Garling, Donald L., Jr.
88-001540
88-001541
Garner, Kimberly E.
88-002386
Garrod, D. J.
88-002426
Gartner, J. V., Jr.
88-001973
Gascon, D.
88-001800
Gasic, M. J.
88-002096
Gatz, A. John, Jr.
88-002308
Gauldie, R. W.
88-001328
88-001329
Gavaris, S.
88-002427
Gavrilis, Dimitris G.
88-002243
Gebhart, Glen E.
88-001195
Gehrke, Peter C.
88-001446
Gerhardt, Bruce
88-001848
Germon, E.
88-001925
Gern, W. A.
88-001447
Ghaswala, P. S.
88-001448
Ghittino, C.
88-001215
Ghittino, P.
88-001215
88-001908
88-001932
Ghose, S. R.
88-002112
Ghosh, T. K.
88-001539
Giam, C. S.
88-002017
Gibbs, Johnnie
88-002349
Gibson, Michael D.
88-002357
Giebel, Wendelin
88-002009
Gilbert, M.
88-001800
Gilbert, Ronnie J.
88-002366
Gillam, A. H.
88-002016
Gillespie, Robert B.
88-002073
Gilmore, R. Grant
88-001849
Gilyarov, A. M.
88-001801
Giordani, G.
88-001225
Giorgetti, Giorgio
88-001934
Girija, N.
88-001449
Gladstone, William
88-001450
Glass, Ronald J.
88-002145
88-002157
Glattke, Marlen
88-001359
Glennon, Francis X.
88-001968
Gloss, S. P.
88-002210
Gnaiger, E.
88-001451
Gobalet, K. W.
88-001330
Goddard, John A.
88-002360
Goetz, Frederick W.
88-001388
Goksoyr, Anders
88-002010
Golani, D.
88-001850
Gold, J. R.
88-001633
Goldberg, Stephen R.
88-001452
Goldman, Barry
88-001858
Golovan, A. A.
88-001676
Gomelyuk, V. E.
88-001974
Gon, Ofer
88-001851
88-001852
Goode, Bernie
88-002146
Goodman, R. K.
88-001631
Gorbman, A.
88-001555

Gorbunova, L. A.
88-001784
Gordina, A. D.
88-001853
Gorman, Owen T.
88-001677
88-001854
88-001855
Goss, G. G.
88-001453
Gotceitas, Vytenis
88-001678
Goto, A.
88-001469
Gotshall, Daniel W.
88-002202
Gottofrey, James
88-002074
Gouda, V. R.
88-002206
Goudie, Cheryl
88-001419
Gould, William R.
88-001331
Gourlie, Brian B.
88-001560
Govoni, John J.
88-001794
Gowrishankar, K. A.
88-001564
Gozzelino, Marie Therese
88-001567
Grace, Robert A.
88-002408
Graham, J. B.
88-001514
Graham, Mark Stephen
88-001454
Grahl-Nielsen, Otto
88-001998
Grant, James W. A.
88-001679
Grant, James William Angus
88-001680
Grasdalen, H.
88-001455
Grau, E. G.
88-001462
Gray, Gerard A.
88-001200
88-001299
88-002309
Gray, John A. B.
88-001421
Grazina-Freitas, M. Susana
88-001603
Greeley, M. S., Jr.
88-001456
88-001527
Green, A. W.
88-002228
Green, J. M.
88-001681
Greenhouse, S. S.
88-001447
Greenland, Donald C.
88-001251
88-001295
Greer, R. B.
88-001370
Gregory, Paul A.
88-002480
Gregory, Robin
88-002147
Grieshaber, M. K.
88-001549
Griffiths, William B.
88-001770
Grimes, C. B.
88-002494
Grimm, Nancy B.
88-001802
Groeger, Alan W.
88-002371
Groman, D. B.
88-001975
Groman, David B.
88-001216
88-001217
Groot, C.
88-001682
Grove, Robert S.
88-002428
Gru, Diego L.
88-001744
88-001761
Guerlotte, Jerome
88-001433
Guillou, A.
88-001296
Gulbrandsen, K.E.
88-001218
Gulland, J. A.
88-002148
Gulland, John A.
88-002429
Gulvas, John A.
88-002286
Gulyaev, Dmitri
88-001438
Gunderson, Donald R.
88-001834
Gunn, J. M.
88-001332
Gunn, John M.
88-002075
Gunn, John Maxwell
88-002011
Gusar, Aleksandr G.
88-002191
Guseva, L. N.
88-001618
Guseva, S. S.
88-002076
Guttman, Sheldon I.
88-001644
88-002053
88-002073
Haahti, Hannu
88-002077
Hadj Ali Salem, M.
88-002044
Hadj Kacem, N.
88-001457
Hakanson, Lars
88-001277
Halacka, Karel
88-002191
Haley, M.
88-001683
Hall, Ethel A.
88-002479
Hall, Gordon E.
88-002361
Hamilton, Steven J.
88-002078
88-002079
Hammerlund, Don O.
88-002337
Hamrin, Stellan F.
88-001685
Hamza, A.
88-002030

Hanan, Doyle A.
88-002414
Hangelin, Christer
88-001684
Hanna, J. Edward
88-002161
Hansen, Jorge E.
88-001744
88-001761
Hansen, L. P.
88-001870
Hansen, Lars P.
88-001219
Hansen, Michael J.
88-001458
Hanson, Lee H.
88-002120
Hansson, Sture
88-002012
Hanyu, Isao
88-001497
Hara, Toshiaki J.
88-001616
Harding, D.
88-002430
Harmon, Paul R.
88-001525
Harper, A. A.
88-001551
Harper, D. G.
88-002230
Harper, Jack L.
88-002362
Harris, Colin K.
88-002181
Harris, J. E.
88-001459
Harrison, Michael Morgan
88-001976
Harrow, Lee G.
88-002311
88-002338
Hart, N. H.
88-001613
Hart, Paul
88-001685
Hart, S.
88-001459
Hartig, J. H.
88-002029
Hartman, Wilbur L.
88-002277
Hartmann, J.
88-001745
Harvey, Stephen
88-001490
Hasegawa, Sanae
88-001485
Hasegawa, Takeshi
88-001723
Hashimoto, K.
88-001648
Hashimoto, Kanehisa
88-001592
Hashimoto, Y.
88-001922
Hassler, T. J.
88-002310
Hastings, Philip A.
88-001686
Hata, Masahiro
88-001465
Hata, Mitsuo
88-001465
Hatori, T.
88-001220
Hattenberger-Baudouy, Anne-Marie
88-001956
Haux, Carl
88-001473
Hawke, S. P.
88-001297
Hawkins, W. E.
88-002080
Hawkins, William E.
88-002087
Hay, D. E.
88-001460
Hay, Michael J.
88-002358
Hayashi, Kenji
88-001461
Haywood, K. H.
88-002149
He, P.
88-001732
Heard, Cherie S.
88-002087
Hecht, T.
88-001687
Hedrick, R. P.
88-001947
88-001948
Heidinger, R. C.
88-002110
Heikkinen, T.
88-001762
Heinen, John M.
88-001252
Heizer, Russell E.
88-002180
Helgason, Sigurdur
88-001217
Helms, L. M. H.
88-001462
Helms, Lisa
88-001463
Heming, Thomas A.
88-002081
Henderson-Arzapalo, Anne
88-001464
Henderson, Eugene B.
88-001525
Hendricks, Jerry
88-002042
Hendrickson, Dean A.
88-002506
Henmi, Hikaru
88-001465
Henrich, Sabine
88-001829
Henry, Raymond P.
88-001466
Hepworth, Dale K.
88-001803
Herdendorf, Charles E.
88-002278
Hergenrader, Gary L.
88-002311
88-002312
88-002314
Hermens, J. L. M.
88-002064
Hernandez-Vazquez, Sergio
88-002431
Herrera, Francisco C.
88-001554
Hess, Tim B.
88-002375
Hesse, Larry W.
88-002312
88-002313

...CONTINUED...
Hesse, Larry W.
88-002314
Hevel, Kerry W.
88-002363
Hickey, W. M.
88-002200
Hickman, Gary D.
88-002363
Hidalgo, F.
88-001285
Higby, M.
88-001688
Higgs, Eric S.
88-002150
Hikita, T.
88-002194
Hill, Alan R.
88-002315
Hill, B. H.
88-002316
Hill, Jennifer
88-002013
Hill, Kevin T.
88-001830
Hilton, J. W.
88-002057
88-002082
Himick, B.
88-001467
Hinckley, Sarah
88-001468
Hinton, David E.
88-002083
Hirano, Tetsuya
88-001485
Hirano, Toshiyuki
88-001304
Hirata, T.
88-001469
Hirayama, K.
88-001198
Hockett, Christopher T.
88-001977
Hodges, M. C.
88-001470
Hodson, Peter V.
88-002084
Hoehn, John P.
88-002231
Hoffman, Karen
88-001471
88-001472
Hogstrand, Christer
88-001473
Holder, M. D.
88-001447
Holdway, D. A.
88-002085
88-002086
Holecek, Donald F.
88-002155
Holland, Marjorie
88-002291
Hollowed, Anne Babcock
88-002432
Holmes, Russell N.
88-002303
Holopainen, Ismo J.
88-001508
Hongskul, Veravat
88-002433
Hongslo, T.
88-001940
Hopkins, Carl D.
88-001474
Hopkins, Ceri L.
88-001777
Horne, M. T.
88-001915
Horsch, C. M.
88-001949
Horstgen-Schwark, G.
88-001627
Hoss, Donald E.
88-001794
Hossain, Amjad
88-001475
Hotaling, Leilani
88-001735
Houde, Anne Elizabeth
88-001689
Houde, E. D.
88-002434
Houng-jew, Wu.
88-002204
Howard, James
88-001477
Howard, James N.
88-001476
Howerton, Robert D.
88-001478
Howgate, Peter
88-002492
Hoyt, Robert D.
88-002364
Hsiao, S.-M.
88-001479
Hsiao, Shyh-Min
88-001480
Huang, N.
88-001632
Huang, Ru Chih C.
88-001560
Huang, Yuan-Ping
88-001481
Huato-Soberanis, Leonardo
88-002435
Hubbard, Walter D.
88-001856
Hubbs, Clark
88-001634
Hubert, Wayne A.
88-001407
88-001790
88-001833
Hudson, Patrick L.
88-002327
Huggett, Robert J.
88-002027
Hughes, M.
88-001601
Hughes, R. M.
88-002317
Hughes, Robert M.
88-001702
88-002014
Hughes, Steven G.
88-001482
Huh, Gang-Joon
88-001920
Hulata, G.
88-001259
Hunt, G. A.
88-001601
Hunt, R. V.
88-002089
Hunte, Wayne
88-002436
Huntingford, F. A.
88-001729
Hurlburt, M.
88-001460
Hurley, Stephen T.
88-001790

Huse, Ingvar
88-001284
88-001584
Hushak, Leroy J.
88-002232
Hvidsten, N. A.
88-001870
Hwang, Deng F.
88-001592
Ida, Tosiomi
88-001271
Iida, N.
88-001633
Imagawa, T.
88-001922
Imai, Chifumi
88-001483
Imai, Masayuki
88-001808
International Council for the Exploration of the Sea
88-002015
International Pacific Halibut Commission
88-002437
Irish, F. J.
88-001333
Irons, Darby
88-001690
Irving, John Spencer
88-002279
Isaac-Nahum, V. J.
88-001484
Isaksson, Arni
88-001221
Isbrucker, I. J. H.
88-001887
Ishikawa, Shingo
88-002440
Isshiki, Tadashi
88-001957
Ivoilov, A. A.
88-001556
Iwai, Toshio
88-001491
Iwata, Munehico
88-001485
Iwata, Tsutomu
88-001465
Izawa, H.
88-001922
Jackson, U. Thomas
88-001407
Jacobs, Kenneth E.
88-002365
Jahn, Andrew E.
88-002233
88-002442
Jahn, Larry A.
88-001691
88-001787
Jakes, David S.
88-002366
James, Margaret O.
88-002087
James, Paul W.
88-002203
Jana, B. B.
88-001243
Janaiah, C.
88-002113
Janssen, Dieter
88-002130
Janssen, John
88-001319
88-002280
Jansson, E.
88-001921
Jansson, Eva
88-001940
Jarvinen, Alfred W.
88-002088
Jauch, Dieter
88-001291
Jensen, Florence V.
88-002293
Jensen, J. O. T.
88-001486
Jernejcic, Frank
88-002367
Jerzyk, Marian Stanislaw
88-001807
Jessee, W. N.
88-002438
Jobling, M.
88-002496
Joeres, Erhard F.
88-002170
88-002318
Johangir, Z. M. G. S.
88-001334
Johansson, L.
88-001692
Johnsen, Peter B.
88-001373
Johnson, Allyn G.
88-001828
Johnson, James E.
88-002319
Johnson, Philip C.
88-001693
Johnson, Steven L.
88-001305
Johnston, C. E.
88-001979
Johnston, C. S.
88-002016
Johnston, Ian A.
88-001487
Johsson, Bror
88-001219
Jones, G. P.
88-001871
Jones, John R.
88-002007
88-002078
88-002079
Jones, N. V.
88-002398
Jones, R. S.
88-002494
Jones, T. Wayne
88-002368
Jonsson, Bjarni
88-001502
Jorgensen, E.
88-002496
Jorgensen, L.
88-001455
Jorgensen, Leif
88-002000
Joseph, Daven C.
88-002439
Joy, K. P.
88-001494
Juario, Jesus V.
88-001580
Jude, D. J.
88-002005
Jude, David J.
88-002292
Junghahn, Ilse
88-001488
Jurss, Karl
88-001488

Jurvelius, Juha
88-001762
Kaattari, Stephen L.
88-001942
Kaeriyama, M.
88-001237
Kahn, Bernd
88-001489
Kaiser, H. Fred, Jr.
88-002152
Kajak, Zdzislaw
88-002281
Kajihara, Takeshi
88-001839
Kalinoski, D. Lynn
88-001391
Kallemeyn, Larry W.
88-001763
Kane, Thomas R.
88-001222
Kanehiro, Haruyuki
88-002204
Kaneko, T.
88-001496
Kaneko, Toyoji
88-001490
Kanno, Tsuyoshi
88-001930
Kano, Terumasa
88-001919
Kanwal, J. S.
88-001520
Kapetsky, J. M.
88-002369
Karabanov, E. B.
88-001784
Karel, W. J.
88-001633
Kasahara, Y.
88-001520
Kashimoto, Takashi
88-002131
Kashiwagi, Masaaki
88-001491
Katavic, I.
88-002128
Katula, Ray
88-001694
Katz, Yair
88-001373
Kaushik, N. K.
88-002253
Kawaguchi, Kouichi
88-002440
Kawai, Kenji
88-001924
Kawauchi, H.
88-001594
Kazakov, R. V.
88-001831
Keane, B.
88-001639
Kedney, G. I.
88-001672
Keenleyside, M. H. A.
88-001709
Keith, William E.
88-002370
Kelley, Christopher D.
88-001492
Kelley, D. F.
88-001832
Kelly-Quinn, M.
88-002320
Kelly, R. K.
88-002089
Kelso, J. R. M.
88-002005
Kelso, William E.
88-002348
88-002372
Kenchington, Trevor J.
88-002441
Kendall, A. W., Jr.
88-001746
Kennedy, V. C.
88-002344
Kennicutt, M. C. II
88-002017
Kennish, John M.
88-002090
88-002490
Kent, M. L.
88-001948
Kentouri, M.
88-001285
Kerley, G. I. H.
88-001695
Kestemont, P.
88-001493
Ketele, Ann Gerard
88-001696
Kevern, Niles R.
88-002282
Khan, I. A.
88-001494
Kharin, V. E.
88-001888
Killgore, K. Jack
88-001747
Kim, Ik-Soo
88-001889
Kim, Sunng Yeon
88-001509
Kim, Yong Uk
88-001545
88-001889
Kimmel, Bruce L.
88-002371
Kimura, Ikuo
88-002018
Kimura, Takahisa
88-001937
Kindschi, Greg A.
88-001223
88-001253
King, Darrell L.
88-002304
King, Everett Louis, Jr.
88-002120
King, Judy Ann Curtis
88-001495
King, Ronald G.
88-002311
Kingery, Roger W.
88-001778
Kingsley, John B.
88-001254
Kinney, Andrew J.
88-001702
Kirby, J. M.
88-002321
Kirchesch, V.
88-002330
Kitoh, Junzoh
88-001335
Kiyohara, S.
88-001336
88-001520
Kiyohara, Sadao
88-001335
Kjesbu, Olav Sigurd
88-001337

Kjorsvik, Elin
88-002070
Klauda, Ronald J.
88-002091
Klaverkamp, J. F.
88-002089
Kleeman, James M.
88-002123
88-002124
Kleiber, P.
88-002234
Klerman, A. K.
88-001605
Kline, Edward R.
88-002088
Kline, L. W.
88-001496
Klotz, R. L.
88-002326
Klungsoyr, Leiv
88-001284
Knight, Robert L.
88-002322
Knight, S. S.
88-001857
Knoff, Marcelo
88-001969
Knorr, Donald F.
88-002019
Knudsen, Curtis M.
88-002181
Knudsen, Kathy L.
88-001636
Kobayashi, Donald R.
88-001697
Kobayashi, H.
88-001550
Kobayashi, Jindo
88-001651
Kobayashi, Makito
88-001497
Kocik, John F.
88-001698
Kodama, H.
88-001922
Kodric-Brown, Astrid
88-001699
Koester, D. M.
88-001498
Kohda, Masanori
88-001700
Kohler, Christopher C.
88-002372
88-002424
Kohno, Hiroshi
88-001890
88-001891
Kolyadenko, V. N.
88-001518
Komatsu, Shichiko
88-001485
Konovalov, S. M.
88-002323
Kormanik, G. A.
88-001499
Kornfield, I.
88-001635
Korpakova, I. G.
88-002076
Korwin-Kossakowski, M.
88-001500
Koslow, J. Anthony
88-001764
Koulish, S.
88-001501
Kowite, William J.
88-001748
Kozel, Steven J.
88-001833
Krahn, M. M.
88-002095
Krahn, Margaret M.
88-002098
Krajnovic-Ozretic, M.
88-002092
Krall, M. M.
88-001701
Kramer, C. R.
88-001501
Kramer, D. L.
88-002021
Kramer, Donald L.
88-001823
Kramer, Richard P.
88-002319
Krieger, Douglas A.
88-002373
Krise, William F.
88-001234
Kristinsson, Julius B.
88-001502
Krovacek, Karel
88-001923
Krueger, Charles C.
88-002226
88-002283
88-002284
Kruse, Glen W.
88-001691
Kryvi, Harald
88-001438
Kudo, George
88-002491
Kudo, N.
88-001922
Kuhlmann, Dietrich H. H.
88-002020
Kulakkattolickal, A. T.
88-002021
Kulikova, N. I.
88-001503
Kullander, Sven O.
88-001892
Kumar Ray, Arun
88-002046
Kumar, Nishith
88-002104
Kumar, Sunil
88-001201
Kunze, Peter
88-001504
Kunzlik, P. A.
88-001749
Kurokawa, Makoto
88-001505
Kurzawski, Kenneth F.
88-002389
Kushlan, James A.
88-001859
Kusuda, Riichi
88-001924
88-001934
88-001957
Kuwasawa, Kiyoaki
88-001505
Kyle, J. H.
88-002269
Labedz, Teresa
88-001490
LaBomascus, D. C.
88-001298
Labrie, Fernand
88-001412

Lacanilao, Flor
88-002285
Lacher, Malka
88-001193
Lacroix, Gilles L.
88-002093
Ladner, Cornell M.
88-001286
Lafeber, Floris P. J. G.
88-001490
LaFleur, Gary J.
88-001506
Laflin, Bonny D.
88-002364
Lagler, Karl F.
88-002235
Lai, Han-Lin
88-001834
Lai, N. C.
88-001507
Laidley, C. W.
88-001338
88-001945
Lam, T. J.
88-001206
Landahl, J. T.
88-002095
Landesman, L.
88-001206
Landsberg, J. H.
88-001950
Lane, H. C.
88-001470
Lang, S. H.
88-001718
Langdon, J. S.
88-001951
Lange, K.
88-001741
Langerman, J. D.
88-002287
Langhorst, Daniel R.
88-001766
Langley, Keith
88-001425
Lappalainen, Antti
88-002022
Larkin, Peter A.
88-002151
Larsen, David P.
88-001702
88-002014
Larsen, Knud
88-002324
Larson, Eric
88-002319
Lasta, Carlos A.
88-001786
Laufer, Miguel
88-001554
Laurencin, F. Baudin
88-001320
88-001925
Laurila, Sari
88-001508
Lavenberg, Robert J.
88-002442
Lavoie, Michel
88-001412
Law, Y. K.
88-002225
Lawrence, B. J.
88-001587
Laws, E. A.
88-001272
Layzer, James B.
88-001511
Le Louarn, H.
88-001307
Leach, D. N.
88-002269
Leach, G. J.
88-002269
Leak, J. C.
88-002434
Leary, Robb F.
88-001636
Leatherland, J. F.
88-001338
88-001426
88-001434
88-001945
Lech, John J.
88-001528
Ledbetter, David Maxwell
88-002236
Ledo, Aurora
88-001941
Leduc, Gerard
88-002099
Lee, Jonathan A. C.
88-001339
Lee, Taek Yuil
88-001509
88-001510
Lee, Yong-Joo
88-001889
Lee, Young Don
88-001510
Leefers, Larry A.
88-002152
Lehman, J.
88-001912
Lehmann, J.
88-001926
Lehtinen, Steven F.
88-001511
Leipertz, Steven L.
88-001340
Leis, Jeffrey M.
88-001858
Leland, Harry V.
88-002119
Lemm, Carol A.
88-001228
Lemos, Manuel L.
88-001941
Leon, Stuart C.
88-002203
Leonardsson, Kjell
88-001779
Leong, Tak-Seng
88-001909
Leschen, W.
88-001915
Leung, P. C.
88-002094
Levi, Eldon J.
88-002479
Levin, L. E.
88-001703
Levine, Jay F.
88-001931
Lewis, Howard S.
88-002312
88-002314
Lewis, Roy R., III
88-002416
Lewis, W. M.
88-002110
Lewis, William M.
88-001203
Libby, Lawrence W.
88-002162

Libosvarsky, Jiri
88-001354
Lie, O.
88-001574
Liimatainen, V. A.
88-001332
Lin, G. L.
88-001512
Lin, Yuan
88-001560
Lindem, T.
88-001741
Lindqvist, Ossi V.
88-001199
Linnenbach, M.
88-001579
Linnenbach, Michael
88-002121
Linton, T. L.
88-001298
Lisac, Darko
88-001279
Liston, Charles R.
88-002286
Little, Edward E.
88-002100
Liu Rongzhen
88-001513
Livingston, Mary E.
88-001804
Ljungberg, O.
88-001921
Llobrera, Alcestis T.
88-001927
Lluch-Belda, Daniel
88-002435
Lo, Chu-Fang
88-001978
Loch, John J.
88-001805
Lochmann, S. E.
88-001765
Loftus, K. H.
88-002153
Loftus, William F.
88-001859
Lokshina, A. B.
88-001622
Loomis, David K.
88-002443
Lopez Lemus, Luis Gerardo
88-001750
Lopez, Oscar Monterrosa
88-002401
Loucks, Eric D.
88-002170
Loucks, R. H.
88-002444
Love, R. Malcolm
88-001389
Low, Loh Lee
88-001834
Lowe, Christopher G.
88-001704
Lowell, W. R.
88-001514
Lowery, M. S.
88-001515
Lucchetti, Gino L.
88-001200
88-001299
Luczynski, M.
88-001415
Luczynski, Miroslaw
88-001516
Luksene, Dale
88-001743
Lundberg, Per
88-001779
Lyashenko, A. N.
88-001831
Lykkeboe, Gunnar
88-001597
Lyons, John
88-002325
Lythgoe, J. N.
88-001546
Mabee, Paula Marie
88-001637
Mac, Michael J.
88-002023
Macaranas, Julie M.
88-001638
MacDonald, A. G.
88-001551
Maceina, Michael John
88-002195
MacGregor, Robert, III
88-001419
Maciorowski, Anthony F.
88-001275
Mackay, Donald
88-002054
MacKenzie, K.
88-001928
MacLatchy, D. L.
88-001517
MacLatchy, Deborah L.
88-001414
MacLean, J. A.
88-002005
MacMahon, P. D.
88-001385
MacMichael, Gregory J.
88-001286
MacNeill, David B.
88-001661
Madhu Sudhana Rao, G.
88-001449
Madu, C. T.
88-001912
Maeda, Tatsuaki
88-001595
Mahon, Robin
88-002445
88-002446
88-002447
88-002448
Mahon, Susan
88-002445
Mai Dinh Yen
88-001860
Main, M. R.
88-001806
Maksimov, V. A.
88-001752
Maksimovich, A. A.
88-001341
Malhotra, S. K.
88-001966
Malins, D. C.
88-002095
Malins, Donald C.
88-002098
Malone, Ronald F.
88-001201
Manca, Emilio
88-002488
Mandos, M. A.
88-002400
Mangor-Jensen, Anders
88-001443
88-002024

Mansson, Ingmar
88-001923
Manteyfel, Yu. B.
88-001518
Manthe, Don P.
88-001201
Manzanilla, Enrique
88-002411
Mapstone, B. D.
88-002449
Marais, J. F. K.
88-001427
March, B. E.
88-001210
88-001524
Marchant, T. A.
88-001571
Marchesseault, Guy
88-002205
Marcus, Michael Dean
88-002374
Markevich, A. I.
88-001974
Marking, Leif L.
88-002120
Marlasca, Jesus
88-001321
Marliave, Jeffrey B.
88-001292
Marsh, Paul C.
88-001766
Marshall, B. E.
88-002287
Marshall, Nelson
88-002450
Marte, Clarissa L.
88-001250
Marthaler, R.
88-001579
Marthaler, Roland
88-002121
Martic, M.
88-002096
Martin, Christopher
88-002375
Martin, F. Douglas
88-002102
88-002498
Martin, James R.
88-002497
Martin, Larry R.
88-001770
Martin, Larry R. G.
88-002237
Martin, P.
88-002040
Martin, Robert G.
88-002158
Martinez-Palacios, Carlos A.
88-001287
Martinez, G.
88-001316
Martinez, I.
88-001519
Martini, David K.
88-001489
Martyniak, Andrzej
88-001807
Marui, T.
88-001336
88-001520
Mas, Julio
88-002050
Masnado, Robert G.
88-002097
Mason, Doran M.
88-001661
Massod, M.
88-002069
Mathews, C. P.
88-001824
88-002206
88-002451
88-002472
88-002473
Mathews, Heyward
88-002452
Mathisen, A.-L.
88-001681
Matlock, G. C.
88-002228
Matlock, Gary C.
88-001275
88-002154
Matson, E. A.
88-002326
Matsuda, Osamu
88-002440
Matsumiya, Yoshiharu
88-001808
Matsushima, Y.
88-001224
Matsuura, Shuhei
88-001780
Matsuyama, Michiya
88-001780
Matter, William J.
88-002327
Matthews, Anne Marie
88-001444
Matthews, R. A.
88-001994
Matthey, Gilbert
88-001402
Mattson, Mark T.
88-002189
Matty, Allen J.
88-001521
Matuda, K.
88-002207
Matuda, Ko
88-002251
Matzko, K.
88-001601
Maughan, O. Eugene
88-001195
88-002203
88-002289
Mawle, G. W.
88-001751
Mayden, Richard L.
88-001893
Mazey, B.
88-001325
Mazhirina, G. P.
88-001522
Mazik, Patricia M.
88-001523
McCain, B. B.
88-002095
McCain, Bruce B.
88-002098
McCallum, Ian M.
88-001210
88-001524
McClain, Jerry
88-001430
McCleave, James D.
88-001734
McConnell, Robert J.
88-001809
McCormick, Stephen D.
88-001525

McCosker, John E.
88-001864
McCullough, Dale Alan
88-002328
McDannold, William E., Sr.
88-001759
McDonald, D. Gordon
88-001529
McDonough, Maureen H.
88-002155
McDowall, R. M.
88-001342
McEachran, J. D.
88-001765
McElroy, Paul J.
88-002055
McEvoy, T.
88-001639
McFall-Ngai, M.
88-001705
McGeachy, Sandi M.
88-002099
McGinty, Andrew S.
88-001255
McGladdery, S. E.
88-001979
McGlade, Jacquie
88-001767
McGowen, Gerald E.
88-002442
McGurk, Michael Douglas
88-001526
McHenry, Michael L.
88-002503
McInerny, Michael C.
88-002387
McIntire, C. David
88-002329
McIntyre, D. B.
88-001256
McKay, Edward H.
88-002185
McKay, Robert I.
88-001210
McKeown, B. A.
88-001460
McKevitt, Mark E.
88-002337
McLachlan, Anton
88-001427
McLaughlin, Richard J.
88-002453
McMillan, Charmion B.
88-001903
McMurtry, M. J.
88-001332
McPhail, J. D.
88-001721
McPherson, R.
88-001456
88-001527
McVicar, A. H.
88-001970
88-001980
Meade, J. W.
88-001386
Meade, James W.
88-001202
88-001233
Means, J. C.
88-001624
Mearns, Alan J.
88-002025
Mehrle, Paul M.
88-002078
88-002079

...CONTINUED...
Mehrle, Paul M.
88-002100
Meier, A. H.
88-001479
Meier, Albert H.
88-001480
Meier, Michael H.
88-002497
Meisler, Martin Robert
88-001894
Melancon, Mark J.
88-001528
Mellergaard, S.
88-001910
Melotti, P.
88-001225
Meluzzi, A.
88-001225
Menezes, Jaime
88-001958
Merle, Ghislaine
88-001956
Merola, Nino
88-001257
88-001258
Merrett, N. R.
88-002454
Merritt, Glenn
88-002276
Messieh, S. N.
88-001781
Mestre, D.
88-001742
Metcalfe, C. D.
88-002101
Meteyer, Marc J.
88-002102
Meyer, D. L.
88-001619
Michaud, M.
88-001835
Mikami, T.
88-001922
Miller, Andrew C.
88-001747
Miller, David R.
88-001805
Miller, K.
88-001975
Miller, Marc L.
88-002156
Miller, N. W.
88-001512
Miller, P. J.
88-001900
Milligan, C. Louise
88-001529
Milstein, A.
88-001259
Minchin, D.
88-001861
88-001862
88-001863
Ming, Frederick Warren
88-001530
Minshall, G. Wayne
88-002260
Minton, R. Vernon
88-002061
Miranda, L. Esteban
88-002376
Mires, Dan
88-001260
Mirza, Jobed A.
88-001531
Mishra, B. K.
88-001261

Misjunene, Danute
88-001743
Mitenev, V. K.
88-001952
Mitz, Stephen V.
88-002105
Mitzner, Larry R.
88-001872
Miyazaki, T.
88-001929
Mizue, Y.
88-001198
Mizuma, H.
88-001198
Mock, D.
88-001926
Moffitt, Brenda P.
88-002026
Moffitt, Christine M.
88-001231
Mohanti, A. N.
88-002112
Moksness, Erlend
88-001836
Moller, H.
88-001911
Moller, Peter
88-001719
Molnar, K.
88-001991
Mommsen, T. P.
88-001552
Mommsen, Thomas P.
88-001609
Momot, Walter T.
88-001768
Monge, Daniele
88-001955
Moon, T. W.
88-001552
Moon, Thomas W.
88-001609
Moore, Alan A.
88-001300
Moore, Michael N.
88-002051
Morales, Patricia
88-001968
Moran-O'Connell, Victoria
88-001816
Morgan, Joseph R.
88-002455
Morgan, Mary Joanne
88-001706
Morgensen, Sue A.
88-002172
Morin, J.
88-001705
Morin, P.-P.
88-001532
Morin, Roderick
88-001731
Morrison, J. K.
88-001948
Morrow, J. C.
88-001294
Mortimer, C. H.
88-002266
Morton, Rick M.
88-002399
Mosconi-Bac, N.
88-001533
Moser, H. Geoffrey
88-002456
Mosindy, Thomas E.
88-001768
Motokane, Toyoaki
88-001592
Mottet, Madelon Green
88-002457
Mousseau, Timothy A.
88-001707
Moy, Philip B.
88-002288
Mrowka, Wolfgang
88-001578
88-001782
Mudarris, M.
88-001534
Mugiya, Yasuo
88-001343
88-001535
Muhlia-Melo, Arturo
88-002458
Muir, James F.
88-002477
Muir, William D.
88-001809
Mulla, M. A.
88-001265
Muller, D.
88-002330
Mulligan, K.
88-001329
Mulligan, T. J.
88-002188
Mulligan, Timothy J.
88-002498
Mulligan, Timothy James
88-001640
Muncy, Robert J.
88-001778
Mundahl, Neal D.
88-001791
Mundy, P. J.
88-001708
Munkittrick, K. R.
88-002103
Munro, John L.
88-002238
Munroe, Thomas Allan
88-001895
Muoneke, Maurice Ibechema
88-001641
Mur, L. R.
88-001302
Murata, Michiyo
88-001416
88-001572
Muroga, Kiyokuni
88-001930
Murphy, Margaret C.
88-001816
Muth, Robert M.
88-002145
88-002157
Myatt, DeWitt O., III
88-002459
Myers, Katherine W.
88-002181
Myers, M. S.
88-002095
Myers, Mark S.
88-002098
Myers, R. A.
88-002415
Nachtigall, W.
88-001675
Nadkarni, Vinayak Baburao
88-001422
Naevdal, Gunnar
88-001238

Nafpaktitis, Basil G.
88-001598
Nagahama, T.
88-001290
Nagasawa, Kazuya
88-001981
Nailon, Robert W.
88-002331
Naiman, Robert J.
88-001731
Nakada, Makoto
88-001271
Nakai, Toshihiro
88-001930
Nakamoto, Rodney J.
88-002039
Nakamura, Moritaka
88-001616
Nakanishi, Teruyuki
88-001642
Nakanishi, Y.
88-001922
Nakari, T.
88-001536
Nakaya, K.
88-001342
Namminga, Harold E.
88-002362
Nash, Gary
88-001278
Nath, Kedar
88-002104
Nelson, Richard W.
88-002491
Nelson, Walter R.
88-002176
Nemtzov, Simon C.
88-001864
Nettles, D. C.
88-002210
Neurohr, R.
88-001675
Neves, Richard J.
88-001982
New, John Gerard
88-001537
Newbold, J. D.
88-002306
Newman, Jonathan A.
88-001657
Newman, Michael C.
88-002105
Newton, Scott H.
88-001251
Ney, John J.
88-001309
88-002372
Nguyen van Trong
88-001860
Nichols, J. H.
88-002430
Nickum, John G.
88-001790
Nieboer, Evert
88-002106
Nielsen, O.
88-002089
Nieman, Douglas
88-002332
Nieto, Teresa P.
88-001935
Nijssen, H.
88-001887
Nilsen, Baard
88-001229
Nishida, Mutsumi
88-001344
Noakes, David L. G.
88-001679
88-002075
Noble, Richard L.
88-002377
Noga, Edward J.
88-001931
Noguchi, Tamao
88-001592
Nolan, Steven
88-001596
Noltie, D. B.
88-001709
Noltie, Douglas B.
88-001837
Norbury, Frederick L.
88-002152
Norrgren, Leif
88-002133
Norstrom, Ross J.
88-002054
Northcutt, R. Glenn
88-001345
88-001538
Norton, S. F.
88-001710
Nose, Yukio
88-001361
88-001362
Nouaze, Yvon
88-001815
Novikov, G. G.
88-001599
Novinger, Gary D.
88-002378
Novoselov, A. P.
88-001810
Novotny, Jerry F.
88-002365
Nriagu, Jerome O.
88-002106
O'Connor, Joseph M.
88-002027
O'Hara, K.
88-001812
O'Maoileidigh, N.
88-001643
O'Neil, Steven P.
88-001711
O'Neill, R. V.
88-002306
Obiekezie, A. I.
88-001911
88-001912
Odenkirchen, Edward W.
88-002107
Ogasawara, Tsuyoshi
88-001485
Ogawa, Kazuo
88-001978
88-001995
Ojha, Jagdish
88-001539
Okach, J. O.
88-001712
Okaeme, A. N.
88-001912
Okamoto, Nobuaki
88-001959
Okeyo, Daniel Okoth
88-001811
Okrah, Emmanuel A.
88-001267
Okumoto, Naoto
88-001723
Oliver, Barry G.
88-002056

Olmsted, Larry L.
88-002028
88-002379
Olsen, Hakan
88-001713
Olvera Novoa, Miguel A.
88-001287
Omernik, J. M.
88-002317
Omernik, James M.
88-001702
Onozato, Hiroshi
88-001642
Opperhuizen, Antoon
88-002108
88-002109
88-002118
Opstad, Ingegjerd
88-001284
Opuszynski, Karol
88-001262
Orbach, Michael K.
88-002411
Orth, Donald J.
88-002396
Ortner, M.
88-001451
Osborne, David R.
88-001644
Osborne, P. L.
88-002269
Osburn, H. R.
88-002228
Oskarsson, Sumarlidi
88-001221
Osse, J. W. M.
88-001346
Ostrowski, Anthony C.
88-001540
88-001541
Outram, D. N.
88-001460
Ovenden, J. R.
88-001645
Overholtz, William J.
88-001542
Overstreet, R. M.
88-002080
Oyetayo, A. S.
88-001983
Ozretic, B.
88-002092
Pacific Fishery Management Council
88-002166
88-002333
88-002460
Pagan-Font, Francisco A.
88-001257
Paggi, J. C.
88-001818
Pakhorukov, N. P.
88-001676
Palacios-Fontcuberta, M. A.
88-001932
Paller, M. H.
88-002110
Paller, Michael H.
88-001203
88-001792
Palmer, Robert E.
88-002091
Palomares, Ma. Lourdes
88-002462
Palomeque, J.
88-001519
Palva, E. Tapio
88-001226
Palva, Tuula K.
88-001226
Pandey, Amaresh Chandra
88-001543
Pang, P. K. T.
88-001496
Pang, Peter K. T.
88-001490
Pani, K. C.
88-001261
Panisset, J. C.
88-002059
Pankhurst, N. W.
88-001544
88-001590
Pankhurst, Neville W.
88-001783
Paperna, Ilan
88-001984
Paragamian, Vaughn L.
88-002334
Parekh, A.
88-001325
Park, Yang-Sung
88-001545
Parker, J. H.
88-002487
Parker, Nick C.
88-001419
Parkhurst, Benjamin Rice
88-002111
Parrish, J. K.
88-001714
Parrish, James D.
88-002461
Partridge, J. C.
88-001546
Pasco, L.
88-001950
Patchell, Graham J.
88-001347
Paterson, Sally
88-002054
Patil, H. S.
88-002045
Patino, Reynaldo
88-001547
Patzner, Robert A.
88-001548
Paul, Robert W., Jr.
88-002335
Pauly, Daniel
88-002462
88-002463
Pavlov, D. A.
88-001752
Pavlov, D. S.
88-001725
Pavlov, Dimitrij S.
88-002191
Pearcy, W. G.
88-001789
Pechar, Libor
88-001249
Peck, J. W.
88-002005
Peckarsky, Barbara L.
88-002239
Peirson, G.
88-002175
Pelster, B.
88-001549
88-001550
Penaz, Milan
88-001753
88-002037

Pennec, J.-P.
88-001551
Pennington, C. H.
88-002301
88-002331
88-002348
Pennypacker, Keith R.
88-001326
Pequeno R., German
88-002240
Perez Diaz, J.
88-001944
Perez-Villarreal, Begona
88-002492
Perez, E.
88-001715
Perez, Sergio Mussot
88-001865
Perle, M.
88-001325
Perrotta, Ricardo G.
88-001744
Perry, R. Ian
88-001769
Perry, S. F.
88-001552
Perry, Steve F.
88-001609
Persson, Per-Edvin
88-002493
Perttila, Matti
88-002077
Pesonen, S.
88-001536
Peter, R. E.
88-001426
88-001571
Peter, Richard E.
88-001481
Peterman, Paul H.
88-002100
Peters, John C.
88-002380
Peters, Karin
88-002032
Petersen, Chris W.
88-001671
Petersen, Christopher W.
88-001716
Peterson, James H.
88-002442
Peterson, Richard E.
88-002123
88-002124
Petridis, D.
88-001812
Petty, Jim D.
88-002100
Phelps, S. R.
88-001646
Phelps, Stevan R.
88-001636
Phillips, Ray A.
88-001223
Phillips, Ronald C.
88-002416
Phippen, Kenneth W.
88-002182
Piedrahita, R. H.
88-002241
Piedrahita, Raul H.
88-001268
Pierce, Clay Lynn
88-001717
Piironen, Jorma
88-001508
Piper, Robert G.
88-001211
Pitcher, T. J.
88-001718
Pitrolo, Elizabeth
88-002381
Pizzorno, Marie C.
88-001452
Planter, Maria
88-001242
Platt, Christopher
88-001553
Platts, William S.
88-002503
Plaza-Yglesias, Margarita
88-001554
Plisetskaya, E. M.
88-001555
Ploeg, A.
88-001896
Ploskey, Gene R.
88-002242
Pocock, Dorothy
88-002262
Podushka, S. B.
88-001556
Poe, William E.
88-001612
Polling, L.
88-001263
88-001288
Pollnac, Richard B.
88-002464
Pollock, Barry R.
88-002399
Poluhowich, John J.
88-001441
Ponton, D.
88-001813
Popper, Arthur N.
88-001380
88-001557
Potter, Kenneth W.
88-002170
Powell, David C.
88-001886
Powell, K. A.
88-001558
Power, Geoffrey
88-001785
Poxton, M. G.
88-001227
Prasad, M. S.
88-001348
Prasad, Msk.
88-002113
Prazakova, Miroslava
88-001249
Prentice, John A.
88-001559
Price, Jeffrey L.
88-001560
Prince, Eric. D.
88-002289
Prinsloo, J. F.
88-001288
Prophet, Carl W.
88-001349
88-002290
Propst, Dennis B.
88-002243
Prosi, F.
88-002060
Prosser, Norville S.
88-002382
Puttman, Steve
88-002373

Quast, Jay C.
88-001350
Quinn, John
88-002280
Quinn, T. P.
88-001682
Radonski, Gilbert C.
88-002158
Radtke, Richard L.
88-001836
Raffeto, Nancy S.
88-001561
Rajjo, I. M.
88-001411
Ramaballav, Roy
88-001562
Ramaprabhu, T.
88-002112
Ramirez, Fernando C.
88-001736
Ramos, Alice
88-001958
Randall, Alan
88-002244
Randall, D. J.
88-001615
Randall, John E.
88-001884
Rani, V. Joyce Shobha
88-002113
Rankin, Catharine H.
88-001719
Rankin, E. T.
88-002255
Rankin, Edward T.
88-002256
Rao, S. B.
88-001448
Raquel, Paul F.
88-001866
Rasch, Danny L.
88-002293
Raschi, William
88-001311
88-001317
88-001351
Rask, Martti
88-002022
Rast, Walter
88-002291
Rathke, D.
88-002266
Rathke, D. E.
88-002029
Ratti, Maria M.
88-001352
Ravagnan, Gino
88-001204
Ravi, G.
88-002114
Raynard, Robert S.
88-001563
Reay, P. J.
88-001897
Reckhow, Kenneth H.
88-002245
Reddin, D. G.
88-002465
Reddy, P. Konda
88-001564
Redell, Lori A.
88-001228
Redmond, Lee C.
88-002360
88-002383
Reetz, Steven D.
88-002173

...CONTINUED...
Reetz, Steven D.
88-002312
88-002314
Regidor, Hector
88-001825
Reglero, A.
88-001944
Reice, Seth R.
88-002336
Reilly, Barbara N.
88-002344
Reisenbichler, R. R.
88-001646
Reisenbichler, Reginald R.
88-002183
Render, Jeffrey H.
88-002466
Repsys, Andrew J.
88-002174
Reshkin, Stephan J.
88-001565
Rettig, R. Bruce
88-002246
Reutter, Klaus
88-001353
Revels, W. H.
88-001301
Riad, Wafa T.
88-002206
Riazi, Ali
88-001566
88-001567
Rice, Jake C.
88-002247
Richards, Kevin
88-002384
Richards, Kevin R.
88-002385
Richards, R. H.
88-001946
Richmonds, C.
88-002115
Richmonds, Chelliah
88-002116
Richter, Hans Joachim
88-001720
Ricque, D.
88-001933
Rieger, G. E.
88-001451
Riis-Vestergaard, J.
88-001568
Ringler, Neil H.
88-001771
Ringo, Einar
88-001229
Rivera, E.
88-001921
Rizvi, Muhammad
88-002349
Rizvi, Narjis
88-002349
Robertson, L.
88-001569
88-001570
Robinette, H. Randall
88-001252
88-001396
Robins, C. Richard
88-002467
Robinson-Wilson, Everett
88-002007
Robinson, E. H.
88-001298
Robinson, Edwin H.
88-001264

...CONTINUED...
Robinson, Edwin H.
88-001418
Robinson, J. B.
88-002253
Rodgers, John H., Jr.
88-002337
Rodriguez Aparicio, L. B.
88-001944
Roedel, Philip M.
88-002470
Roesler, Collin S.
88-002468
Rogers, Donald E.
88-002181
Rogers, G.
88-001601
Rogers, Gary D.
88-002174
Rogers, Peter H.
88-001557
Rohde, K.
88-001985
Rohm, Christina M.
88-001702
Romestand, B.
88-001457
88-001962
Rondorf, Dennis W.
88-002309
Roponen, Terho
88-001199
Ropson, Ira J.
88-001647
Rosecchi, Elisabeth
88-001814
88-001815
Rosemark, R.
88-001947
Rosenau, Marvin L.
88-001721
Rosenblum, P. M.
88-001571
Rosenqvist, Gunilla
88-001658
Rosenthal, Richard J.
88-001816
Rosenthal, Stuart S.
88-002170
Ross, Quentin E.
88-002189
Rossi-Wongtschowski, C. L. del B.
88-001484
Rottiers, Donald V.
88-001228
Rottmann, R. W.
88-001205
88-001301
Roubal, W. T.
88-002095
Roumillat, William A.
88-001410
Rouse, David B.
88-001265
Ruane, Richard J.
88-002386
Ruban, Georji I.
88-001354
Rudenko, I. V.
88-001556
Rudstam, Lars G.
88-001722
Runn, Per
88-002133
Ruppert, David E.
88-002157
Rutecki, Thomas L.
88-002292
Rybak, Jadwiga
88-002281
Sahu, A. K.
88-001261
Saidel, William M.
88-001557
Saila, Saul B.
88-002248
88-002249
88-002469
88-002470
Saint-Paul, U.
88-001355
Saito, Y.
88-001290
Sakaguchi, Morihiko
88-001416
88-001572
Sakaki, Hideyuki
88-001491
Sakanari, Judith Anne
88-001986
Sala, Roser
88-001321
Salati, F.
88-001987
Salati, Fulvio
88-001934
Sale, Peter F.
88-002471
Saleh, H. H.
88-002030
Salhus, Harald
88-002008
Salvenmoser, W.
88-001451
Samuel, M.
88-002451
88-002472
88-002473
Sanchez, Ramiro P.
88-001573
88-001786
88-001825
Sandee, A. J. J.
88-002400
Sanders, M. J.
88-002250
Sanders, R. E.
88-002255
Sanders, Randall E.
88-002031
Sandnes, K.
88-001574
Sangalang, Gloria B.
88-001575
Sanger, A. C.
88-001645
Sannomiya, Nobuo
88-002251
Sano, T.
88-001913
Sano, Tokuo
88-001959
Santos, Ysabel
88-001935
88-001941
Saraiva, A.
88-001907
Sarancov, Stanislav I.
88-002191
Sarig, S.
88-001266
Sarusic, Gordana
88-001279
Satchell, G. H.
88-001440

Satchell, Geoffrey H.
88-001576
Satoh, Shuichi
88-001271
Satou, Masahiko
88-001723
Saul, Gary E.
88-002154
88-002327
Saunders, Richard L.
88-001230
88-001525
Sawada, Morinobu
88-001651
Sawashi, Yasumasa
88-001344
Sayer, M. D. J.
88-001577
Scannell, Cheryl L.
88-002486
Schaefer, Kurt M.
88-001867
Schaefer, Scott A.
88-001356
88-001898
Scheid, P.
88-001550
Schierwater, Bernd
88-001578
88-001782
Schlesinger, Allen B.
88-002311
88-002312
88-002314
88-002338
Schmidt, David R.
88-001770
Scholefield, Ronald J.
88-002117
Scholl, John P.
88-002414
Schoonbee, H. J.
88-001263
88-001288
Schramm, Harold L., Jr.
88-001267
Schrap, S. Marca
88-002109
88-002118
Schreck, Carl B.
88-001382
88-001547
Schreck, Julie A.
88-001231
Schroder, Johannes Horst
88-002032
Schroeder, Robert E.
88-002474
Schumacher, E. Randy
88-002184
Scott, J. S.
88-002475
Scudder, Barbara C.
88-002119
Scully, Richard James
88-002339
Seale, Dianne B.
88-001817
Seaman, William, Jr.
88-002476
Seawell, William M.
88-002386
Seelye, James G.
88-002120
Segner, H.
88-001579

...CONTINUED...
Segner, H.
88-002060
Segner, Helmut
88-001580
88-002121
Seidel, Paul
88-001214
Seinen, W.
88-002064
Seiwald, Margit
88-001548
Selezneva, A. A.
88-001357
Sellers, Stephen J.
88-002411
Selvarajan, V. R.
88-002114
Seno, Yoshio
88-001959
Seret, Bernard
88-001899
Serigstad, Bjorn
88-001443
88-001581
88-002033
Servo, G.
88-001484
Sevenster, P.
88-001623
Severson, Steven H.
88-001223
Seyedbagheri, Kathleen A.
88-002503
Sezaki, K.
88-001648
Shabetai, R.
88-001514
Shamsudin, Mariana Nor
88-001278
Shane, Richard M.
88-002386
Sharaf, I.
88-002069
Shariff, M.
88-001278
Shaw, Susan
88-002477
Shea, Patrick J.
88-002039
Sheehy, Daniel J.
88-002478
Shelbourn, John E.
88-001409
Shelton, William L.
88-001531
Sheridan, M. A.
88-001582
Shim, K. F.
88-001206
Shimizu, Makoto
88-001361
88-001362
Shimoda, S. K.
88-001462
Shipman, B. N.
88-001583
Shireman, J. V.
88-001205
88-001301
Shostak, Allen William
88-001988
Shreibman, M. P.
88-001334
Sibbing, Ferdinand A.
88-001358
Side, J.
88-002016

Sideleva, V. G.
88-001784
Sikkel, P. C.
88-001724
Siler, J. Robert
88-002387
88-002499
Simco, Bill A.
88-001419
Simons, Lee H.
88-002507
Singh, N. K.
88-001539
Sinnott, Timothy J.
88-001771
Sjostrom, Per
88-001431
Skibinski, D. O. F.
88-001621
Skiftesvik, Anne Berit
88-001584
Skinner, William
88-002186
Skorobogatov, M. A.
88-001725
Slizeski, Joseph J.
88-002340
Smatresk, N. J.
88-001583
88-001585
Smatresk, Neal J.
88-001466
Smiley, L.
88-001571
Smirnov, A. V.
88-001760
Smirnov, N. V.
88-001784
Smith, Bruce
88-001820
Smith, Carol J.
88-001586
Smith, Daniel Wilkins
88-001268
Smith, Gary E.
88-001793
Smith, I. R.
88-001989
Smith, Joseph W.
88-002479
Smith, Larry M.
88-002100
Smith, M. A.
88-002255
Smith, Paul E.
88-002233
88-002456
88-002486
Smith, R. J. F.
88-001587
Smith, Robert R.
88-001232
Smith, S. J.
88-002427
Smith, T. P.
88-002167
Smith, William B.
88-002388
Smitherman, R. O.
88-001631
Smithson, James A.
88-002389
Smucker, Richard A.
88-002498
Soares, G. M.
88-001355
Sobaski, Stephen T.
88-002164
Soderberg, Richard W.
88-001233
88-001234
Sogard, Susan M.
88-001794
Soivio, A.
88-001536
Solajarvi, Kalervo
88-001772
Solberg, Tor S.
88-001588
88-002010
Soler, M.
88-002040
Solomon, R. Charles
88-002223
Somero, George N.
88-001424
Somers, Keith Marquis
88-001726
Sonoda, Teruhiko
88-001592
Sonstegard, Ronald A.
88-002055
88-002056
Sonu, Choule J.
88-002428
Sorbera, Lisa
88-001589
Sorensen, Elsie M. B.
88-002122
Sorensen, P. W.
88-001590
Souza, Lawrence M.
88-001425
Spaar, S. A.
88-002310
Sparre, P.
88-002252
Spencer, S. L.
88-002390
Speyerer, P. D.
88-001936
Spitsbergen, Jan M.
88-002123
88-002124
Sprague, J. B.
88-002034
Sreenan, J.
88-001639
Sreenivasan, A.
88-001269
Srinivasan, K. V.
88-001194
Srivardhana, Ruangdej
88-002341
Srivastav, A. K.
88-001990
Srivastava, B. K.
88-001990
St. Arnaud, Rene
88-001412
Stabell, Ole B.
88-001591
Stack, M.
88-001639
Staggs, Michael D.
88-002325
Stalling, David L.
88-002100
Stammers, W. N.
88-002253
Stamps, D. J.
88-001943

Stanczykowska, Anna
88-002299
Stanek, Zdenek
88-002037
Stanford, Jack A.
88-002345
88-002346
Starling, C. C.
88-001301
Steele, Peter Owen
88-001773
Stephen, James L.
88-002391
Stepien, Carol A.
88-001359
Stevens, Fred
88-001634
Stevenson, David K.
88-001360
Stewart, P. A. M.
88-002208
Stickney, Robert R.
88-002288
Stjepcevic, J.
88-002096
Stockton, Thomas B., Jr.
88-002245
Stoffle, Richard W.
88-002293
Stokes, Pamela M.
88-002135
Stone, Richard B.
88-002159
Storch, Volker
88-001580
Strand, Bernt
88-001284
Strange, Richard J.
88-001614
Stroffek, S.
88-001813
Stroud, Joan
88-002026
Stubbs, Daryl L.
88-001410
Stuckey, H. M.
88-001917
Stull, Janet K.
88-002480
Sturenberg, F.-J.
88-001926
Stynes, Daniel J.
88-002160
Suda, Yusuke
88-001361
88-001362
Sugita, Haruo
88-001592
Sulaiman, Abdul Halim B.
88-002125
Sullivan, C. V.
88-001593
Sundby, A.
88-001555
Sundqvist, B.
88-001921
Sundqvist, Bo
88-001940
Suter, W.
88-001819
Sutinen, Jon G.
88-002464
Suzuki, K.
88-001594
Svensson, Ingrid
88-001658
Swain, Wayland R.
88-002035
Swanson, Bruce L.
88-001774
Swanson, G. M.
88-001256
Swanson, P.
88-001594
Swink, William D.
88-002365
Szekely, C.
88-001991
Tackett, Dewey L.
88-001727
Tajima, Kenichi
88-001937
Takahashi, H.
88-001290
Takahashi, Takeo
88-001491
Takahashi, Toyomi
88-001595
Takahashi, Yukinori
88-001938
Takashima, F.
88-002225
Takei, Kohtaro
88-001723
Takeuchi, Hiroaki
88-001723
Takeuchi, Toshio
88-001271
Talhelm, Daniel R.
88-002161
88-002162
88-002294
Tanaka, Syoiti
88-001483
Tanasichuk, R. W.
88-002254
Tang, Yong
88-001596
Taniguchi, Norihiko
88-001959
Tanner, Danny K.
88-002088
Tarakanov, E. A.
88-001874
Tate, Laurence G.
88-002126
Tatsukawa, Ryo
88-002131
Tavolga, William N.
88-001380
Taylor, P. B.
88-001728
Taylor, William W.
88-001698
Tazik, Pamela P.
88-002164
Teeter, John H.
88-001373
Teh, Swee J.
88-002083
Templeman, Wilfred
88-001363
88-001364
Terhaar, Monte J.
88-001691
Tesar, Mary A.
88-002171
Testaverde, Salvatore Anthony
88-001914
Tetens, Vilhelm
88-001597
Tetrick, Nathaniel
88-002318

Thatcher, V. E.
88-001963
Thoma, R. F.
88-002255
Thoma, Roger F.
88-002256
88-002342
Thomas, P.
88-001569
88-001570
Thomas, Peter
88-001506
88-001559
Thomassen, Jan
88-001284
Thompson, Bruce A.
88-001826
Thompson, Eric M.
88-001598
Thompson, K. R.
88-002444
Thompson, Kenneth W.
88-001754
88-001844
Thompson, R. K.
88-001329
Thomson, Martha
88-001841
Thorburn, Margaret A.
88-001939
Thorne, Richard E.
88-002481
Thorpe, John E.
88-001235
Thresher, Ronald E.
88-001868
Thuvander, A.
88-001921
Thuvander, Ann
88-001940
Tilseth, Snorre
88-001588
Timeyko, V. N.
88-001599
Timmermans, Lucy P. M.
88-001365
Titus, Eric
88-001600
Tjalve, Hans
88-002074
Todd, Robert D.
88-002343
Tokano, K.
88-001236
Tomasso, J. R.
88-001523
88-002129
Tominaga, Osamu
88-001595
Tommey, Harry
88-001270
Toner, K. B.
88-001601
Toranzo, Alicia E.
88-001935
88-001941
Torchy, Corinne
88-001955
88-001960
Torres Lara, Ricardo
88-001780
Torres, P.
88-002127
Tort, L.
88-002127
Toth, R. J.
88-001948
Townsend, C. R.
88-002175
Townsend, Donald R.
88-002093
Townsend, Kimberly
88-001931
Trant, J. M.
88-001570
Trapp, Todd W.
88-001722
Travina, Vicente S.
88-001250
Treasurer, James W.
88-001838
Trewavas, Ethelwynn
88-001876
Trexler, J. C.
88-001649
Tricas, Timothy C.
88-002257
Trilles, J.-P.
88-001962
Tripathy, N. K.
88-001650
Triska, F. J.
88-002344
Trites, R. W.
88-002444
Tschirhart, John
88-002258
Tsuji, Frederick I.
88-001598
Tsukamoto, Katsumi
88-001839
Tucker, John W., Jr.
88-001280
88-001289
Tudor, M.
88-002128
Tudorancea, C.
88-001818
Tulley, J. J.
88-001729
Turaga, Prasad S. D.
88-001942
Turgeon, Kristin S.
88-001489
Turner, George F.
88-001730
Turner, J. A.
88-001718
Turner, William M.
88-002392
Turnpenny, A. W. H.
88-002036
Twichell, D. C.
88-002494
Tytler, P.
88-001602
Tytler, Peter
88-001366
U.S. National Marine Fisheries Service
88-002482
Uchida, H.
88-001290
Ueda, Kazuo
88-001723
Ueda, Takayoshi
88-001651
Ueyanagi, Shoji
88-001858
Ulgenes, Yngve
88-001238
Unwin, Martin J.
88-001777
Urawa, S.
88-001237

...CONTINUED...
Urawa, S.
88-001992
Urrutia, Michael L.
88-002129
Usher, Anthony J.
88-002295
Utne, F.
88-001218
Van Den Avyle, Michael J.
88-002361
88-002393
van der Heiden, Albert M.
88-001865
Van der Waal, B. C. W.
88-001263
Van Ness, Kirk P.
88-002025
Van Tassell, J. L.
88-001900
Van Utrecht-Cock, C. N.
88-001869
Van Utrecht, W. L.
88-001869
Van Winkle, W.
88-002306
Van Winkle, Webb
88-002215
VanDerLaan, Steve R.
88-002282
Vanderpool, Christopher K.
88-002163
88-002296
Vant, W. N.
88-002297
Varanasi, Usha
88-002058
Varghese, T. J.
88-001564
Vari, Richard P.
88-001901
88-001902
Vasey, Fred W.
88-002222
Vaughan, Douglas S.
88-002479
88-002483
Venkateshwarlu, P.
88-002113
Ventura, M. Tereza
88-001603
Verigina, I. A.
88-001367
Verspoor, E.
88-001652
Vickery, W. L.
88-002259
Victor, Peter
88-002161
Vigna, S. R.
88-001411
Villegas, Maria Luisa
88-001604
Vinogradov, G. A.
88-001605
Vinogradova, V. M.
88-001518
Vinyard, Gary L.
88-001693
Virbickas, Juozas
88-001743
Vischer, H. A.
88-001368
Viscor, G.
88-001519
Vitali, A.
88-001225
Vogt, J. David
88-002245
Volobuev, V. V.
88-001752
von Westernhagen, Hein
88-002130
Vondracek, Bruce
88-001606
Voors, Paul I.
88-002108
Voros, L.
88-001303
Vuorinen, Ilppo
88-001684
Vuorinen, Pekka J.
88-002022
Waagbo, R.
88-001574
Wagh, S. B.
88-001607
Wainwright, P. C.
88-001369
Waiwood, K. G.
88-001281
Wakabayashi, Hisatsugu
88-001920
88-001978
88-001995
Waldman, John R.
88-002189
Walker, A. F.
88-001370
Walker, R. J.
88-001308
Walker, Robert V.
88-002181
Walker, W. W.
88-002080
Wallace, Jeff
88-001239
88-001240
88-001608
Wallace, R. A.
88-001456
88-001527
Walsh, Gordon
88-001731
Walsh, P. J.
88-001552
Walsh, Patrick J
88-001609
Walter, Claudia B.
88-001819
Waltz, C. Wayne
88-001410
Wang Hao
88-001513
Wang, Chung-Hsiung
88-001978
Wang, Fengsong
88-002132
Wang, Ki-Wei
88-001271
Waples, Robin S.
88-002484
Ward, F. J.
88-001256
Ward, Frank
88-002221
Ward, James V.
88-002345
88-002346
Ward, Timothy
88-002221
Wardle, C. S.
88-001551

...CONTINUED...
Wardle, C. S.
88-001732
Ware, D. M.
88-001428
88-002254
Warner, Robert R.
88-001733
Watabe, S.
88-001648
Watanabe, Isao
88-002131
Watanabe, Takeshi
88-001271
Wathey, John C.
88-001610
Watson, Lauren C.
88-001282
Webb, J. F.
88-001371
Webb, Jacqueline F.
88-001319
Webb, Jacqueline Felice
88-001372
Weber, Lavern J.
88-001576
Webster, J. R.
88-002316
88-002321
Weinstein, Michael P.
88-001711
Weis, Judith S.
88-002132
Weis, Peddrick
88-002132
Weisburd, Richard S. J.
88-001272
Weithman, A. Stephen
88-002394
Weitzman, Stanley H.
88-001902
Wells, R. M. G.
88-001440
Welsh, Michael P.
88-002265
Werner, Robert G.
88-002013
Westoby, Mark
88-001450
Wezstein, Hans-Ulrich
88-001504
Wheeler, Alwyne
88-001862
White, Andrew M.
88-001654
White, R. W. G.
88-001645
Whitehurst, David K.
88-001309
Whiteley, H. R.
88-002253
Whitsett, Jane F.
88-002490
Whittier, Thomas R.
88-001702
Whittle, D. Michael
88-001999
Whoriskey, F. G.
88-002259
Wicker, Anton M.
88-002270
Wicklund, Anders
88-002133
Widdows, John
88-002051
Widlak, James C.
88-001982
Wiens, Gregory D.
88-001942
Wight, Harry L.
88-002359
Wiid, A. J. B.
88-001288
Wiklund, Bo-Soren
88-001241
88-001431
Wilcox, R. Stimson
88-001611
Wiles, Michael
88-001953
Wiley, Michael J.
88-002164
Wilimovsky, Norman J.
88-002485
Wilkonska, Halina
88-002298
Willford, Wayne A.
88-002134
Williams, D. D.
88-001666
Williams, David E.
88-002048
Williams, Ernest H., Jr.
88-001993
Williams, Lucy Bunkley
88-001993
Willis, David W.
88-002209
88-002395
Wilson, Anne
88-001915
Wilson, Charles A.
88-002192
Wilson, Marcia D.
88-001489
Wilson, Robert P.
88-001612
Winfield, L. E.
88-002301
Winkler, Patricia
88-001820
Winnacker, E.-L.
88-001627
Winstone, A.
88-001751
Winterbourn, M. J.
88-001806
Winters, David S.
88-002199
Wippelhauser, Gail S.
88-001734
Wisner, Robert L.
88-001903
Wisniewski, Rajmund Jan
88-001242
Wissel, Christian
88-002229
Withler, R. E.
88-001653
Witter, Daniel J.
88-002350
Wlosinski, Joseph H.
88-002260
Wohlfarth, G. W.
88-001259
Wohlgemuth, Evzen
88-002037
Wolenski, J. S.
88-001613
Wolf, Patricia
88-002486
Wolfe, Douglas A.
88-002038

Wolff, W. J.
88-002398
88-002400
Wong, See-Yong
88-001909
Woo, P. T. K.
88-001945
Wood, B. P.
88-001994
Wood, C. M.
88-001453
88-001615
Wood, Judith G.
88-002245
Woodhead, P. M. J.
88-002487
Woodman, David A.
88-001755
Woodward, Colleen Caldwell
88-001614
Wooster, Warren S.
88-002432
Wourms, J. P.
88-001406
Wrathmell, A. B.
88-001459
Wren, Christopher D.
88-002135
Wright, David A.
88-002102
88-002498
Wright, P. A.
88-001615
Wullimann, Mario F.
88-001345
Wurtsbaugh, Wayne A.
88-001606
Wyatt, R. J.
88-001775
Wyman, Richard L.
88-001735
Yaguchi, Masanao
88-001271
Yamamori, Kunio
88-001616
Yamamoto, F.
88-001922
Yamashita, S.
88-001336
Yamashita, Satoru
88-001335
Yamazaki, F.
88-001469
Yarbo, Laura A.
88-002347
Yarbrough, C. Jarrell
88-002165
Yoklavich, M. M.
88-001746
Yoklavich, Mary M.
88-002500
Yonchek, Joan
88-001617
York, R. H.
88-001272
Yoshijima, Shigekane
88-001271
Yoshinaga, Tomoyoshi
88-001995
Youson, John H.
88-001401
Yu, K. L.
88-001571
Yulin, Jiang
88-001961
Zagar, Anthony J.
88-002396
Zajdlik, B. A.
88-001989
Zale, Alexander V.
88-002187
88-002203
Zamora, Ma. Divina V.
88-002504
Zarbalieva, T. S.
88-001821
Zdanowski, Boguslaw
88-002299
Zhang Yuling
88-001904
Zharikova, T. I.
88-001996
Zhengqui, Li
88-001961
Zholdasova, I. M.
88-001618
Zhou Wei
88-001905
Zimpfer, Steven P.
88-002348
Zinkl, Joseph G.
88-002039
Zippel, H. P.
88-001619
Zuerlein, Gene J.
88-002313
Zukal, Ruda
88-001293
Zver'kova, L. M.
88-001620
Zwerner, D. E.
88-001973

Africa
88-002369
Alaska
88-001708
88-001816
88-002142
88-002157
88-002167
Alaska: Gulf of Alaska
88-001746
Alaska: Kvichak River
88-001308
Alaska: Sagavanirktok River
88-001770
Alaska: Ugashik River
88-001308
Antarctica
88-001972
Antarctica: Lutzow-Holm Bay
88-002440
Antarctica: Queen Maud Land
88-001885
Arabian Sea and Area
88-002434
Argentina
88-001378
88-001736
88-001786
88-001825
88-002488
Argentina: Argentine Sea
88-001845
Arizona
88-002506
88-002507
Arizona: Lake Mohave
88-001766
Arizona: Lake Pleasant
88-002172
Arizona: Sycamore Creek
88-001802
Arizona: Virgin River
88-002505
Arkansas: Blue Mountain Lake
88-002354
Arkansas: Lake Catherine
88-001270
Arkansas: Lake Coronado
88-002357
Arkansas: Nimrod Lake
88-002354
Atlantic Ocean
88-001973
88-002422
88-002482
Atlantic Ocean, North
88-001315
88-001363
88-001364
88-001400
88-001522
88-001551
88-001758
88-001764
88-001767
88-001840
88-001863
88-001868
88-001869
88-001914
88-001928
88-002016
88-002027
88-002196
88-002197
88-002198

...CONTINUED...
Atlantic Ocean, North
88-002205
88-002400
88-002407
88-002409
88-002426
88-002427
88-002430
88-002447
88-002454
88-002465
Atlantic Ocean, North: Georges Bank
88-001542
Atlantic Ocean, North: Gulf of St. Lawrence
88-001800
Atlantic Ocean, Northeastern
88-001861
88-001862
Atlantic Ocean, Northwestern
88-002444
Atlantic Ocean, South
88-001410
88-001819
88-001851
Atlantic Ocean, West Central
88-002417
88-002421
Australia
88-001967
88-001985
88-002397
88-002399
Australia: Great Barrier Reef
88-001858
88-001871
Australia: Lizard Island
88-001858
Australia: Victoria
88-001951
Baltic Sea
88-002012
88-002217
Baltic States
88-001213
88-001392
88-002179
Barbados
88-002406
Belize
88-001664
88-001704
Bolivia
88-001887
Brazil
88-001887
88-001892
88-001901
88-001963
Brazil: Amazon Basin
88-001842
Brazil: Rio de Janeiro State
88-001969
Brazil: Rio Mato Grosso
88-001797
California
88-001947
88-002202
88-002414
88-002456
88-002468
88-002486
California, Northern
88-002344
California, Southern
88-002413
California: Inyo County
88-001793

California: Mono County
88-001793
California: Monterey Bay
88-001886
California: Moro Bay
88-001739
California: Palos Verdes Penninsula
88-002480
California: Sacramento River
88-001949
88-002310
California: Sacramento-San Joaquin Delta
88-001866
Canada
88-001522
88-001757
88-002059
Canada: Bay of Fundy
88-002475
Canada: British Columbia
88-001460
88-001682
88-001721
88-002236
88-002254
Canada: British Columbia: Vancouver Island
88-001789
Canada: Fraser River
88-001682
Canada: Gulf of St. Lawrence
88-001781
Canada: Lake Ontario
88-001989
Canada: Manitoba
88-002089
Canada: New Brunswick
88-001666
Canada: Newfoundland
88-001400
88-001652
88-001740
88-001776
Canada: Nova Scotia
88-001953
88-002093
88-002427
Canada: Ontario
88-001332
88-001707
88-001726
88-001773
88-001785
88-001847
88-002089
88-002094
88-002135
88-002138
88-002153
88-002161
88-002262
88-002295
Canada: Ontario: Black Creek
88-001679
Canada: Ontario: Duffin Creek
88-002315
Canada: Ontario: Lake Ontario
88-002237
Canada: Ontario: Menitouwadge Lake
88-002103
Canada: Ontario: Middle Thames River
88-001709
88-001837
Canada: Ontario: Nottawasaga River
88-002315
Canada: Ontario: Savanne Lake
88-001768
Canada: Ontario: Whitepine Lake
88-002011
Canada: Quebec
88-001296
88-001796
Canada: Quebec: Matamek River
88-001731
Canada: Quebec: Petite Trinite River
88-001835
Canada: Quebec: Riviere a la Truite
88-001731
Canary Islands
88-001900
Caribbean Area
88-001849
88-002401
88-002405
88-002445
88-002448
Caspian Sea and Area
88-001821
Chile
88-001207
88-001663
88-001903
China
88-001905
88-001961
China: Lake Taihu
88-001904
Colombia: Meta River
88-002339
Colorado: Cement Creek
88-002300
Colorado: Chatfield Reservoir
88-002373
Colorado: East River
88-002239
Colorado: Parvin Lake
88-002182
Connecticut: Shetucket River
88-002326
Costa Rica
88-001316
88-001360
88-001880
Czechoslovakia
88-001249
Czechoslovakia: Jihlava River
88-002037
Czechoslovakia: Oslava River
88-002191
Denmark
88-002324
East China Sea and Area
88-001361
Egypt
88-002066
88-002067
88-002068
88-002069
Egypt: Lake Mariut
88-002030
England
88-002175
88-002430
England: Cumbria County
88-001827
England: East Stour River
88-002002
England: Slapton Ley
88-001775
Ethiopia: Lake Awassa
88-001818
Europe
88-002004

Europe, Northern
88-001276
88-002077
Europe, Northern: Baltic Sea
88-001354
Faeroe Islands
88-002465
Finland
88-001192
88-001199
88-001772
88-002022
Finland: Lake Passivesi
88-001762
Florida
88-001267
88-001828
88-001859
88-002263
Florida, Northcentral
88-002187
Florida: Lake County: Trout Lake
88-002270
Florida: Lake George
88-002187
Florida: Silver Springs
88-002322
France
88-001307
88-001742
Georgia
88-002366
Georgia: Lake Oconee
88-002375
Georgia: Savannah River
88-002327
Ghana: Volta Basin
88-001621
Great Lakes
88-001325
88-001377
88-001528
88-001999
88-002005
88-002006
88-002029
88-002034
88-002056
88-002134
88-002170
88-002216
88-002265
88-002266
88-002268
88-002272
88-002273
88-002274
88-002275
88-002277
88-002294
88-002296
Greece
88-001626
Gulf of Mexico
88-001794
88-001828
88-002017
88-002466
88-002479
88-002482
88-002483
Haiti
88-002424
Hawaii
88-001272
88-001756

...CONTINUED...
Hawaii
88-001964
88-002408
Hawaii: Kailua-Kona
88-001830
Hungary: Lake Balaton
88-001303
Iceland
88-001216
88-001217
88-001221
Idaho: South Fork Salmon River
88-002503
Illinois
88-002110
88-002164
Illinois: Cook County
88-001854
Illinois: Dupage County
88-001854
Illinois: Lake County
88-001854
Illinois: McHenry County
88-001855
Illinois: Nippersink Creek
88-001855
Illinois: Spring Lake
88-001691
88-001787
India
88-001269
88-001650
88-002149
India: Bombay: Sasoon Dock
88-001990
India: Nayar River
88-001966
Indian Ocean
88-001853
88-002419
88-002423
Indonesia
88-002149
Iowa
88-002334
Iowa: Lake Rathbun
88-001872
Iraq: Diyala River
88-001906
Ireland
88-001862
Ireland: Killarney Lakes
88-001643
Ireland: Owendoher Stream
88-002320
Israel
88-001260
88-001266
88-001850
Italy
88-001908
88-001932
88-001934
Jamaica
88-002406
Japan
88-001344
88-001592
88-001700
88-001913
88-001992
88-001993
88-002018
88-002131
88-002181
88-002428

...CONTINUED...
Japan
88-002457
Japan: Hokkaido
88-002194
Japan: Korea Strait
88-001780
Japan: Lake Kasumiguara
88-001271
Japan: Shari River
88-001208
Japan: Shijiki Bay
88-001808
Kansas
88-002395
Kansas: Lake Redding
88-002290
Kansas: Lovewell Reservoir
88-002391
Kansas: Rock Creek
88-001634
Kentucky: Green River Lake
88-002365
Kentucky: Rough River Lake
88-002364
Kenya: Lake Victoria
88-001712
Kuwait
88-001737
88-002206
88-002403
88-002404
88-002451
88-002462
88-002472
88-002473
Lake Erie
88-002262
88-002278
Lake Huron
88-001698
Lake Michigan
88-001817
88-002023
88-002264
88-002280
88-002282
88-002293
Lake Ontario
88-001661
88-002276
Lesser Antilles
88-002401
88-002410
88-002436
88-002439
88-002446
88-002448
Madagascar
88-001899
Maine
88-001222
Maine: Gulf of Maine
88-002198
Malaysia
88-001278
88-001909
Maldive Islands
88-001852
Maryland: Chesapeake Bay
88-001640
88-002027
88-002498
Mediterranean Region
88-001383
88-001814
88-001846

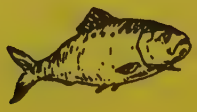
...CONTINUED...
Mediterranean Region
88-001850
88-001900
88-001962
88-002040
Mexico
88-002411
88-002458
88-002506
Mexico: Baja California
88-002431
88-002456
88-002468
Mexico: Gulf of California
88-001750
88-002402
88-002435
Michigan: Au Sable River
88-002211
Michigan: Red Cedar River
88-002304
Minnesota: Voyageurs Natl. Park
88-001763
Mississippi
88-001252
88-001844
88-002349
Mississippi: Little Tallahatchie River
88-001754
Mississippi: Noxubee River
88-001856
Mississippi: Otoucalofa Creek
88-001857
Mississippi: Tombigbee River
88-001778
Missouri
88-002222
Missouri River and Basin
88-002169
88-002171
88-002173
88-002174
88-002311
88-002312
88-002313
88-002314
88-002338
88-002340
88-002343
Missouri: Gasconade River
88-001677
Missouri: Lake of the Ozarks
88-002384
88-002385
Missouri: Montrose Lake
88-002392
Missouri: Pomme de Terre Lake
88-002350
88-002355
88-002356
Missouri: Pony Express Lake
88-001759
Missouri: Stockton Lake
88-002360
Missouri: Table Rock Lake
88-002378
Montana: Lake Koocanusa
88-002279
Morocco
88-001900
88-002149
Nevada
88-001693
Nevada: Lake Mohave
88-001766
Nevada: Manse Spring
88-001384

Nevada: Virgin River
88-002505
New Mexico: Rio Grande River
88-002221
New York
88-002245
New York: Boquet River
88-002210
New York: Hudson River
88-002189
New York: Susquehanna River
88-001848
New Zealand
88-001329
88-001347
88-001783
88-001804
88-001806
New Zealand: Rakaia River
88-001777
88-001799
Nigeria
88-001912
88-001983
Nigeria: Cross River Estuary
88-001911
North America, Western
88-002183
North Carolina
88-002028
88-002308
North Carolina: Creeping Swamp
88-002347
North Carolina: Gaston Reservoir
88-002368
North Carolina: Lake Norman
88-002387
88-002388
88-002499
North Carolina: New Hope Creek
88-002336
North Carolina: New River
88-002316
North Carolina: Tar River
88-002303
North Dakota
88-002089
Norway
88-001238
88-001239
Norway: Imsa River
88-001219
Norway: Lake Takvatn
88-001229
Ohio
88-001702
88-002255
88-002256
Ohio: Auglaize River
88-002031
Ohio: Dicks Creek
88-001977
Ohio: Flushing Escarpment
88-002342
Ohio: Harker's Run
88-001791
Ohio: Ottawa River
88-002031
Ohio: Paddy's Run
88-001644
Ohio: Trumbull Creek
88-001654
Oklahoma
88-001195
Oklahoma: Cimarron River
88-001511
Oklahoma: Lake Carl Blackwell
88-001641
Oklahoma: Texoma Reservoir
88-002362
Oklahoma: Thunderbird Reservoir
88-002351
Oregon
88-001305
88-001789
88-002500
Oregon: Columbia River
88-001805
88-001809
Pacific Ocean
88-001646
88-001738
88-001865
88-001964
88-002413
88-002414
88-002431
88-002456
88-002458
88-002468
88-002480
88-002486
Pacific Ocean, Eastern
88-001867
Pacific Ocean, North
88-001237
88-001350
88-001460
88-001461
88-001468
88-001789
88-001816
88-001981
88-002166
88-002234
88-002254
88-002333
88-002460
Pacific Ocean, North: Okhotsk Sea
88-001620
Pacific Ocean, Northeastern
88-002432
Pacific Ocean, Okhotsk Sea
88-001760
Pacific Ocean, South
88-002471
Pacific Ocean, South: Nazca Ridge
88-001676
Pacific Ocean, South: Sala y Gomez Ridge
88-001676
Pacific Ocean: Johnston Atoll
88-001690
Panama: Sabalo River
88-001843
Papua New Guinea
88-002269
Pennsylvania: Brandywine Creek
88-002019
Pennsylvania: East Branch Perkiomen Creek
88-002332
Pennsylvania: Perkiomen Creek
88-002332
Pennsylvania: Schuylkill River
88-002332
Pennsylvania: Susquehanna River
88-001788
88-001820
88-002186
88-002305
Persian Gulf
88-001737
88-001798

...CONTINUED...

Persian Gulf
88-001841
88-002206
88-002403
88-002404
88-002434
88-002451
88-002462
88-002472
88-002473
Peru
88-001452
88-001887
Philippines
88-001196
88-001245
88-001890
88-001891
Philippines: Laguna de Bay
88-001927
Philippines: Laguna Lake
88-002285
Poland
88-001262
88-002281
Poland: Lake Zarnowieckie
88-002298
88-002299
Poland: Pierzchaly Reservoir
88-001807
Portugal
88-001907
88-001958
88-001965
Puerto Rico
88-001360
88-002401
Red Sea and Area
88-001701
88-001864
88-001876
88-001877
88-001878
88-001884
Rhode Island
88-002178
Scandinavia
88-001192
88-001212
Scotland
88-001227
88-001315
88-001980
88-002036
Scotland: Loch Davan
88-001838
Scotland: Loch Kinord
88-001838
Scotland: Loch Rannoch
88-001370
Singapore
88-001206
South Africa
88-001263
88-001819
South America
88-001902
South America: Amazon River and Basin
88-001887
South Carolina
88-001792
88-001822
88-002366
South Carolina: Savannah River
88-002327
South Korea
88-001510
South Vietnam
88-001860
Spain
88-001941
Spain: Albufera Lake
88-002072
Suriname
88-001896
Sweden
88-001197
88-001241
88-001277
88-001939
88-002012
Sweden: Lake Gardsjon
88-002267
Tennessee: Melton Hill Reservoir
88-002363
Tennessee: Watauga River
88-002337
Texas
88-001248
88-001765
88-002228
88-002376
Texas: Aquilla Lake
88-002195
Texas: Guadalupe River
88-001634
Texas: Martin Lake
88-002122
Thailand
88-002149
Thailand: Nam Pong River
88-002341
United States
88-001893
88-002014
88-002025
88-002136
88-002146
88-002159
88-002407
88-002453
United States, Southeastern
88-001849
United States, Western
88-002098
United States: Mississippi River and Basin
88-001790
88-002301
88-002331
Unites States
88-002411
Unites States, Southeastern
88-002416
Untied States: Mississippi River and Basin
88-002348
USSR
88-001752
USSR: Aldan River
88-001354
USSR: Amur Basin
88-001753
USSR: Amur River
88-001625
USSR: Kola Peninsula
88-001952
USSR: Lake Baykal
88-001784
USSR: Lake Bol-shoe Lebyazk'e
88-001810
USSR: Narova River
88-001831
USSR: Neva River
88-001831

USSR: Onega River
88-001810
USSR: Sakhalin Island
88-001224
USSR: Salatsa River
88-001831
USSR: Selenga Basin
88-001753
USSR: Uzbek SSR: Amudar'ya River
88-001618
USSR: Yangtze River
88-001625
Utah: Green River
88-002319
Utah: Newcastle Reservoir
88-001803
Utah: Virgin River
88-002505
Venezuela: Baria River
88-001898
Venezuela: Orinoco River
88-001313
Vermont
88-001222
Vietnam
88-001888
Virgin Islands: St. Croix: Lamb Bay
88-002412
Virginia
88-002289
88-002497
Virginia: Chesapeake Bay
88-001640
88-002027
88-002498
Virginia: Clayton Lake
88-002372
Virginia: Gaston Reservoir
88-002368
Virginia: Guys Run
88-002321
Virginia: New River
88-002316
88-002335
88-002337
Virginia: North Fork Holston River
88-001982
Virginia: York River
88-001711
Wales: Taff River
88-001751
Washington
88-001214
88-001646
88-001789
Washington: Columbia River
88-001805
88-001809
88-002309
Washington: Deschutes River
88-002302
Washington: Porcupine Bay
88-002201
Washington: Puget Sound
88-002058
West Germany
88-002330
West Virginia: Tygart Lake
88-002367
Wisconsin
88-002325
Wisconsin: Fox Lake
88-002177
Wisconsin: Lake Cosgrove
88-002180
Wisconsin: Lake Elwood
88-002180
Wisconsin: Lake Michigan
88-001458
88-002097
88-002226
88-002283
88-002284
Wisconsin: Lake Monona
88-001976
Wisconsin: Lake Nagawicka
88-002184
Wisconsin: Lake Pewaukee
88-002184
Wisconsin: Lake Superior
88-001774
Wisconsin: Nebish Lake
88-001561
Wisconsin: Otter Creek
88-002239
Wisconsin: Pallette Lake
88-001722
Wisconsin: Pikes Creek
88-001774
Wisconsin: Trout Lake
88-001722
Wisconsin: Wisconsin River
88-002318
Wyoming
88-001833
Yugoslavia
88-002096
Zaire
88-001720
Zimbabwe: Lake Kariba
88-002287



Abramis brama
Competition
88-001807
Dactylogyrus
88-001996
Diplozoon
88-001996
Energy Development
88-001743
Foods/Feeding/Selectivity
88-001807
Heated Water
88-001743
Length-Weight Relationships
88-001310
Life History/General
88-001743
Management/Research--Lakes
88-001303
Parasites/Diseases
88-001996
Population Studies
88-001303
Predator/Prey Relationships
88-001807
Production
88-001303
Skeletal System
88-001310
Trematodes
88-001996
Acanthemblemaria crockeri
Courtship
88-001686
Mate Selection
88-001686
Parental Behavior
88-001686
Reproduction
88-001686
Acanthocybium solandri
Marking/Tagging/Tetracycline
88-002190
Acanthopagrus berda
Age/Growth
88-002472
Exploitation Rates
88-002472
Management/Research--Marine
88-002472
Mortality Rates
88-002472
Acanthopagrus bifasciatus
Age/Growth
88-002472
Exploitation Rates
88-002472
Management/Research--Marine
88-002472
Mortality Rates
88-002472
Acanthopagrus cuvieri
Age/Growth
88-002472
Exploitation Rates
88-002472
Management/Research--Marine
88-002472
Mortality Rates
88-002472
Acanthopagrus latus
Age/Growth
88-002472
Exploitation Rates
88-002472
Management/Research--Marine
88-002472
...CONTINUED...
Acanthopagrus latus
Mortality Rates
88-002472
Acarichthys heckeli
Growth
88-001842
Acipenser baeri
Histology
88-001556
Reproductive System
88-001556
Acipenser gueldenstaedti
Histology
88-001556
Reproductive System
88-001556
Acipenser stellatus
Early Development
88-001438
Embryology
88-001438
Histology
88-001438
Acipenser transmontanus
Foods/Feeding/Selectivity
88-001809
Predator/Prey Relationships
88-001809
Agosia chrysogaster
Foods/Feeding
88-001802
Nitrogen
88-001802
Nitrogen Metabolism
88-001802
Photoperiodism
88-001802
Albula vulpes
Life History/General
88-002399
Management/Research--Estuaries
88-002399
Mosquito Control
88-002399
Alepisaurus ferox
Distribution/Geographical
88-001862
Alosa aestivalis
Acidification
88-002091
Aluminum
88-002091
Heavy Metals
88-002091
Alosa fallax
Electrophoresis
88-001643
Meristic Studies
88-001643
Variation Studies
88-001643
Alosa pseudoharengus
Predator/Prey Relationships
88-001661
Ambassis nama
Chromosome Studies
88-001650
Karyotypes
88-001650
Variation Studies
88-001650
Ambloplites rupestris
Age/Growth
88-001837
Brooding Behavior
88-001709
Defensive Behavior
88-001709

...CONTINUED...
Ambloplites rupestris
Fins
88-001317
Musculature
88-001317
Season
88-001837
Sexual Dimorphism
88-001837
Skeletal System
88-001317
Spawning Behavior
88-001709
Temperature
88-001837
Amia calva
Gall Bladder
88-001411
Kidneys
88-001401
Osmoregulation
88-001401
Anableps anableps
Aquariums
88-001291
Brackishwater Culture
88-001291
Culture/Propagation
88-001291
Diets
88-001291
Eyes
88-001291
Foods/Feeding
88-001291
Spawning Substrates
88-001291
Anarhichas denticulatus
Distribution/Geographical
88-001863
Anarrhichthys ocellatus
Aquariums
88-001292
Cryptocaryon irritans
88-001292
Culture/Propagation
88-001292
Growth
88-001292
Incubation
88-001292
Parasites/Diseases
88-001292
Protozoan Diseases
88-001292
Trichodina
88-001292
Anchoa mitchilli
Chromosome Numbers
88-001630
Evolution
88-001630
Karyotypes
88-001630
Anchoa spinifer
Gill Rakers
88-001313
Variation Studies
88-001313
Anchovia surinamensis
Gill Rakers
88-001313
Variation Studies
88-001313
Anchoviella brevirostris
Gill Rakers
88-001313

...CONTINUED...
Anchoviella brevirostris
Variation Studies
88-001313
Anchoviella guianensis
Gill Rakers
88-001313
Growth
88-001842
Variation Studies
88-001313
Anchoviella lepidentostole
Gill Rakers
88-001313
Variation Studies
88-001313
Anchoviella manamensis
Gill Rakers
88-001313
Variation Studies
88-001313
Anguilla
Bacterial Diseases
88-001910
Culture/Propagation
88-001910
Fungal Diseases
88-001910
Gyrodactylus
88-001910
Parasites/Diseases
88-001910
Pseudodactylogyrus
88-001910
Trematodes
88-001910
Anguilla anguilla
Adrenaline
88-001551
Argon
88-001550
Bacteria
88-001932
Bacterial Diseases
88-001932
Blood Chemistry
88-001550
Calcium
88-001551
Cardio-Vascular System
88-001551
Coloration
88-001558
Culture/Propagation
88-001374
88-001932
Diets
88-001374
Disease-Free Culture
88-001932
Edwardsiella tarda
88-001932
Eyes
88-001324
Foods/Feeding
88-001374
Gill Parasites
88-001991
Hardness
88-002072
Hormones
88-001558
Insecticides
88-002072
Lactate Levels
88-001550
Lindane
88-002072

...CONTINUED...
Anguilla anguilla
Liver
88-001374
Mebendazole
88-001991
Nervous System
88-001558
Nitrogen
88-001550
Nutrition
88-001374
Parasites/Diseases
88-001932
88-001991
pH
88-001550
Photoreceptors
88-001324
Pituitary Gland
88-001558
Pressure Effects
88-001551
Pseudodactylogyrus anguillae
88-001991
Pseudodactylogyrus bini
88-001991
Sanitation
88-001932
Temperature
88-001550
88-002072
Treatment
88-001991
Trematodes
88-001991
Anguilla japonica
Bacterial Diseases
88-001930
Enzymes
88-001416
Parasites/Diseases
88-001930
Salinity
88-001416
Vibrio anguillarum
88-001930
Vibriosis
88-001930
Anguilla rostrata
Age/Growth
88-001835
Ammonia
88-001444
Bioenergetics
88-001444
Blood Chemistry
88-001441
Eyes
88-001376
Hematology
88-001441
Histology
88-001376
88-001590
Induced Maturation
88-001590
Light
88-001376
Migration
88-001734
Otoliths
88-001835
Oxygen
88-001441
88-001444
pH
88-001441

...CONTINUED...
Anguilla rostrata
Pigments
88-001376
Protein Metabolism
88-001444
Swimming Performance
88-001734
Vision
88-001376
Apeltes quadracus
Foods/Feeding/Selectivity
88-001666
Aphanius fasciatus
Oil Pollution
88-002044
Aphredoderus sayanus
Genomes
88-001633
Karyotypes
88-001633
Aplochiton taeniatus
Dentition
88-001342
Digestive System
88-001342
Morphology
88-001342
Variation Studies
88-001342
Aplochiton zebra
Dentition
88-001342
Digestive System
88-001342
Morphology
88-001342
Variation Studies
88-001342
Aplodinotus grunniens
Commercial Fishing
88-002391
Harvest
88-002391
Management/Research--Reservoirs
88-002391
Aplysia juliana
Electrophysiology
88-001505
Gills
88-001505
Nervous System
88-001505
Apogonidae
Distribution/Geographical
88-001852
Arapaima gigas
Aquariums
88-001922
Bacterial Diseases
88-001922
Bacterial Hemmorhagic
Septicaemia
88-001922
Culture/Propagation
88-001922
Disease-Free Culture
88-001922
Parasites/Diseases
88-001922
Salmonella arizonae
88-001922
Aristichthys nobilis
Amino Acids
88-001513
Culture/Propagation
88-001246
88-001247

...CONTINUED...
Aristichthys nobilis
Early Development
88-001513
Feeding Experiments
88-001246
Feeds
88-001246
Fertilization
88-001513
Growth
88-001246
Livestock-Fish Culture
88-001247
Polyculture
88-001247
Pond Culture
88-001247
Protein Synthesis
88-001513
Survival
88-001246
Arius bilineatus
Distribution/Geographical
88-001841
Taxonomy
88-001841
Arius dussumieri
Distribution/Geographical
88-001841
Taxonomy
88-001841
Arius tenuispinis
Distribution/Geographical
88-001841
Taxonomy
88-001841
Arius thalassinus
Age/Length Composition
88-002403
Distribtuion/Geographical
88-001841
Exploitation Rates
88-002403
Length-Weight Relationships
88-002403
Population Studies
88-002403
Spawning
88-002403
Stock Assessment
88-002403
Taxonomy
88-001841
Arnoglossus scapha
Foods/Feeding
88-001804
Astatotilapia burtoni
Aggressive Behavior
88-001670
Dominance
88-001670
Home Range
88-001670
Territorial Behavior
88-001670
Astyanax fasciatus
Alarm Reaction
88-001674
Chemoreception
88-001674
Communication
88-001674
Defensive Behavior
88-001674
Foods/Feeding
88-001674
Atherina hepsetus
Oil Pollution
88-002044
Atherino boyeri
Bucephalidae
88-001971
Labratrema minimus
88-001971
Parasites/Diseases
88-001971
Trematodes
88-001971
Atrobucca geniae
New Species
88-001876
Taxonomy
88-001876
Badis badis
Chromosome Studies
88-001650
Karyotypes
88-001650
Variation Studies
88-001650
Bagrus docmac
Distribution/Vertical
88-001712
Foods/Feeding
88-001712
Barbus conchonius
Early Development
88-001365
Embryology
88-001365
Histology
88-001365
Barilius bendelisis
Bothriocephalus teleostei
88-001966
Cestodes
88-001966
Parasites/Diseases
88-001966
Barilius bola
Bothriocephalus teleostei
88-001966
Cestodes
88-001966
Parasites/Diseases
88-001966
Bathylagus
Distribution/Geographical
88-001851
Bathylagus bericoides
Pigments
88-001546
Vision
88-001546
Bathylychnops
Meristic Studies
88-001873
Morphology
88-001873
Taxonomy
88-001873
Batrachocottus baicalensis
Distribution/Geographical
88-001784
Habitat Selection
88-001784
Spawning
88-001784
Belone stolzmanni
Reproduction
88-001452
Spawning
88-001452
Blennius pavo
Reproduction
88-001548

Blennius pholis
Ammonia
88-001577
Excretory System
88-001577
Nitrogen Metabolism
88-001577
Respiration
88-001549
Bostrychus africanus
Nematodes
88-001983
Parasites/Diseases
88-001983
Raphidascaroides africanus
88-001983
Bothragonus swani
Crypsis
88-001340
Evolution
88-001340
Head
88-001340
Mimicry
88-001340
Skeletal System
88-001340
Brachydanio
Cytochalasin B
88-001613
Eggs
88-001613
Fertilization
88-001613
Brachydanio rerio
Biosorption
88-002133
Cadmium
88-002133
Heavy Metals
88-002133
Zinc
88-002133
Brachysomophis cirrhochilus
Distribution/Geographical
88-001864
Life History/General
88-001864
Brevoortia patronus
Age/Growth
88-001826
88-002483
Commercial Fishing
88-002479
88-002483
Density
88-001794
Distribution/Vertical
88-001794
Exploitation Rates
88-002479
Harvest
88-002479
Life History/General
88-001826
Management/Research--Marine
88-002479
88-002483
Maximum Sustainable Yield
88-002483
Otoliths
88-001826
Population Studies
88-002483
Production
88-002479
Stock Assessment
88-002479

...CONTINUED...
Brevoortia patronus
Stock Assessment
88-002483
Year Class Strength
88-002483
Brevoortia tyrannus
Abundance/Factors of
88-002407
Commercial Fishing
88-002407
Economic Values
88-002407
Forecasting
88-002407
Harvest
88-002176
Management/Research--Marine
88-002407
Population Studies
88-002176
Regulations/General
88-002407
Stock Assessment
88-002176
Brosme brosme
Acoustical Methods
88-002494
Echo Sounder
88-002494
Habitat Evaluation
88-002494
Brycon melanopterus
Growth
88-001842
Caesionidae
Taxonomy
88-001881
Callorhynchus milii
Otoliths
88-001329
Campostoma
Gill Rakers
88-001882
Pharynx
88-001882
Taxonomy
88-001882
Campostoma anomalum
Dispersal
88-001791
Electrophoresis
88-001644
Genetic Fitness
88-001644
Habitat Evaluation
88-001644
Habitat Selection
88-001791
Home Range
88-001791
Management/Research--Rivers and Streams
88-001644
Movements
88-001791
Canthigaster punctatissima
Social Behavior
88-001697
Canthigaster rivulata
Digestive System/Bacterial Flora
88-001592
Vibrio
88-001592
Canthigaster valentini
Age/Growth
88-001450
Reproduction
88-001450

Carassius auratus
Hormones
88-001426
88-001481
88-001497
88-001571
Hybridization
88-001426
Nervous System
88-001571
88-001619
Olfaction
88-001619
Pituitary Gland
88-001426
Reproduction
88-001497
Carassius auratus gibelio
Age/Growth
88-001753
Distribution/Geographical
88-001753
Morphology
88-001753
Population Studies
88-001753
Reproduction
88-001753
Carassius carassius
Aeromonas hydrophila
88-001927
Age/Growth
88-001508
Bacterial Diseases
88-001927
Blood Chemistry
88-001605
Early Development
88-001508
Embryology
88-001508
Lesions
88-001927
Osmoregulation
88-001605
Parasites/Diseases
88-001927
Potassium
88-001605
Sodium
88-001605
Stress
88-001605
Temperature
88-001508
Ulcers
88-001927
Carassius gibelio langsdorfii
Culture/Propagation
88-001642
Growth
88-001642
Pond Culture
88-001642
Rearing Density
88-001642
Triploid Fish
88-001642
Variation Studies
88-001642
Carcharhinus leucas
Acoustico-Lateralis System
88-001704
Olfaction
88-001704
Vision
88-001704
Carcharhinus limbatus
Acoustico-Lateralis System
88-001704
Olfaction
88-001704
Vision
88-001704
Carcharhinus perezii
Acoustico-Lateralis System
88-001704
Olfaction
88-001704
Vision
88-001704
Carpoides carpio
Commercial Fishing
88-002391
Harvest
88-002391
Management/Research--Reservoirs
88-002391
Catla catla
Ammonia
88-001243
Culture/Propagation
88-001243
88-001261
Fertilization/Soil and Water
88-001261
Growth
88-001261
Polyculture
88-001243
Pond Culture
88-001261
Production
88-001261
Tank Culture
88-001243
Catostomus commersoni
Acid Precipitation
88-002245
Blood Chemistry
88-001601
Copper
88-002103
Distribution/Geographical
88-001848
Early Development
88-002103
Egg Size
88-002103
Epidermal Papillomas
88-001989
Glyphosate
88-002086
Hematology
88-001601
Modeling
88-002245
Parasites/Diseases
88-001953
88-001989
Permethrin
88-002086
pH
88-001601
88-002245
Protozoan Diseases
88-001953
Reproduction
88-002103
Tumors
88-001989
Caulolatilus
Acoustical Methods
88-002494

...CONTINUED...
Caulolatilus
Echo Sounder
88-002494
Habitat Evaluation
88-002494
Centrarchidae
Genetics
88-001637
Centrophorus granulosus
Distribution/Geographical
88-001850
Distribution/Vertical
88-001850
Centropomus pectinatus
Commercial Fishing
88-001280
Culture/Propagation
88-001280
Centropomus undecimalis
Commercial Fishing
88-001280
Culture/Propagation
88-001280
Centropristus striata
Foods/Feeding
88-001714
Predator/Prey Relationships
88-001714
Centropyge heraldi
Parasites/Diseases
88-001993
Parasitic Isopods
88-001993
Renicola
88-001993
Centropyge vrolicki
Parasites/Diseases
88-001993
Parasitic Isopods
88-001993
Renicola
88-001993
Cephalopholis miniatus
Age/Growth
88-002451
Management/Research--Marine
88-002451
Mortality Rates
88-002451
Cephaloscyllium isabella
Cardio-Vascular System
88-001576
Circulatory System
88-001576
Ceratoscopelus townsendi
Distribution/Geographical
88-001306
Evolution
88-001306
Photophores
88-001306
Taxonomy
88-001306
Variation Studies
88-001306
Ceratoscopelus warmingii
Distribution/Geographical
88-001306
Evolution
88-001306
Photophores
88-001306
Taxonomy
88-001306
Variation Studies
88-001306
Cetorhinus maximus
Commercial Fishing
88-001749
...CONTINUED...
Cetorhinus maximus
Life History/General
88-001749
Population Studies
88-001749
Stock Assessment
88-001749
Taxonomy
88-001749
Chaetodon multicinctus
Foods/Feeding
88-002257
Home Range
88-002257
Chaetodon trifascialis
Foods/Feeding
88-001690
Foods/Feeding/Selectivity
88-001690
Chaetodontidae
Skeletal System
88-001312
Channa punctatus
Ammonia
88-001562
Bioassay Techniques
88-002046
Blood Chemistry
88-001423
Enzymes
88-001494
Hematology
88-001423
88-002046
Industrial Wastes
88-002046
Melatonin
88-001494
Metabolism
88-001562
Oxygen
88-001562
Photoperiodism
88-001494
Starvation
88-001562
Stress
88-001423
Temperature
88-001423
88-001494
Chanos chanos
Cage Culture
88-001250
Culture/Propagation
88-001196
88-001245
88-001250
88-001580
Economic Values
88-001196
Egg Collection
88-001250
Feeds
88-001580
Foods/Feeding
88-001580
Net-Pen Culture
88-001250
Nutrition
88-001580
Pond Culture
88-001196
88-001245
Starvation
88-001580
Chela clupeoides
Biochemical Composition
88-001607

...CONTINUED...
Chela clupeoides
Metabolism
88-001607
Muscle Proteins
88-001607
Musculature
88-001607
Chelon labrosus
Bucephalidae
88-001971
Cryptocotyle lingua
88-001994
Labratrema minimus
88-001971
Melanophores
88-001994
Parasites/Diseases
88-001971
88-001994
Temperature
88-001994
Trematodes
88-001971
88-001994
Chiloscyllium colax
Distribution/Geographical
88-001888
Chiloscyllium doiganovi
Distribution/Geographical
88-001888
Chiloscyllium explotum
Distribution/Geographical
88-001888
Chiloscyllium griseum
Distribution/Geographical
88-001888
Chiloscyllium plagiosum
Distribution/Geographical
88-001888
Chiloscyllium punctatum
Distribution/Geographical
88-001888
Chromis notatus
Histology
88-001510
Reproduction
88-001510
Reproductive Cycle
88-001510
Spawning
88-001510
Chromis ovatiformis
Parasites/Diseases
88-001993
Parasitic Isopods
88-001993
Renicola
88-001993
Chrysichthys nigrodigitatus
Bacterial Diseases
88-001911
Nematodes
88-001911
Parasites/Diseases
88-001911
Protozoan Diseases
88-001911
Trematodes
88-001911
Cichlasoma cyanoguttatum
Competition
88-001683
Mate Selection
88-001683
Cichlasoma nigrofasciatum
Aggressive Behavior
88-001730

...CONTINUED...
Cichlasoma nigrofasciatum
Mate Selection
88-001730
Spawning Behavior
88-001730
Territorial Behavior
88-001730
Cichlidae
Evolution
88-001371
Lateral Line System
88-001371
Neuromasts
88-001371
Cirrhinus mrigala
Ammonia
88-001243
Bacteria
88-001243
Culture/Propagation
88-001243
88-001261
Fertilization/Soil and Water
88-001261
Growth
88-001261
Polyculture
88-001243
Pond Culture
88-001261
Production
88-001261
Tank Culture
88-001243
Citharichthys gordae
Distribution/Geographical
88-001865
Clarias batrachus
Aeromonas hydrophila
88-001927
Ammonia
88-001243
Bacteria
88-001243
Bacterial Diseases
88-001927
Blood Chemistry
88-002113
Cardio-Vascular System
88-001449
Culture/Propagation
88-001243
Dichlorvos
88-002113
Hormones
88-001422
Lesions
88-001927
Musculature
88-001449
Parasites/Diseases
88-001927
Pesticides
88-002113
Steroids
88-001422
Tank Culture
88-001243
Ulcers
88-001927
Clarias gariepinus
Age/Growth
88-001288
Aggressive Behavior
88-001687
Cannibalism
88-001687

...CONTINUED...
Clarias gariepinus
Culture/Propagation
88-001263
88-001288
Diets
88-001288
Egg Production
88-001263
Egg Survival
88-001263
Feeding Experiments
88-001288
Hatching Rates
88-001263
Induced Maturation
88-001263
Spawning Techniques
88-001263
Clarias lazera
Culture/Propagation
88-001912
Disease-Free Culture
88-001912
Henneguya clariae
88-001950
Henneguya laterocapsulata
88-001950
Henneguya ophicephali
88-001950
Henneguya suprabranchiae
88-001950
Henneguya vovki
88-001950
Myxobolus heterofilamentatus
88-001950
Myxosporidia
88-001950
Parasites/Diseases
88-001912
88-001950
Sphaerospora inaequalis
88-001950
Clarias macrocephalus
Age/Growth
88-001823
Air Breathing
88-001823
88-002021
Oxygen
88-001823
Respiration
88-002021
Toxins
88-002021
Clinostomus funduloides
Habitat Selection
88-001432
Metabolism
88-001432
Microhabitat
88-001432
Clupea harengus
Age/Growth
88-001836
Chlorinated Hydrocarbons
88-002077
DNA
88-001635
Early Development
88-001836
Embryology
88-001836
Migration
88-001781
Otoliths
88-001836
Spawning
88-001781

...CONTINUED...
Clupea harengus
Temperature
88-001781
Clupea harengus pallasi
Age/Growth
88-001738
Commercial Fishing
88-001738
Crowding
88-002254
Distribution/Geographical
88-001738
Early Development
88-001460
Egg Samplers
88-001460
Egg Size
88-001460
88-002254
El Nino
88-002254
Fecundity
88-002254
Histology
88-001460
Life History/General
88-001738
Management/Research--Marine
88-002254
Maturation
88-001460
Modeling
88-002254
Population Studies
88-001526
Reproduction
88-001460
88-002254
Season
88-001460
Starvation
88-001526
Taxonomy
88-001738
Temperature
88-002254
Clupeidae
Chromosome Numbers
88-001630
Evolution
88-001630
Karyotypes
88-001630
Cobitis biwae
Diploidization
88-001648
Triploid Fish
88-001648
Colisa fasciatus
Age/Growth
88-001348
Air Breathing
88-001539
Carbohydrate Metabolism
88-002104
Cobalt
88-002104
Early Development
88-001348
Gills
88-001348
Meristic Studies
88-001348
Oxygen
88-001539
Respiration
88-001539

Colisa lalia
Aquariums
88-001206
Culture/Propagation
88-001206
Colossoma
Foods/Feeding
88-001333
Mouth Parts
88-001333
Colossoma macropomum
Culture/Propagation
88-001257
Growth
88-001842
Pond Culture
88-001257
Colossoma mitrei
Cage Culture
88-001258
Culture/Propagation
88-001258
Feeds
88-001258
Growth
88-001258
Rearing Density
88-001258
Conger myriaster
Abundance/Seasonal
88-001808
Age/Growth
88-001808
Age/Length Composition
88-001808
Foods/Feeding
88-001808
Predator/Prey Relationships
88-001808
Sex Ratios
88-001808
Coregonus albula
Age/Growth
88-001762
Biomass
88-001762
Carotenoids
88-001415
Commercial Fishing
88-001772
Early Development
88-001516
Eggs
88-001516
Embryology
88-001415
88-001429
Environmental Factors
88-001516
Exploitation Rates
88-001772
Harvest
88-001772
Management/Research--Lakes
88-001762
88-001772
Mortality Factors
88-001772
Physiology
88-001516
Population Studies
88-001762
88-001772
Predator/Prey Relationships
88-001772
Production
88-001762

...CONTINUED...

Coregonus albula
Reproduction
88-001415
Season
88-001516
Starvation
88-001772
Stock Assessment
88-001762
Temperature
88-001429
88-001516
Coregonus artedii
Dispersal
88-001722
Foods/Feeding
88-001722
Habitat Selection
88-001722
Movements
88-001722
Photoperiodism
88-001722
Schooling Behavior
88-001722
Coregonus fera
Embryology
88-001429
Temperature
88-001429
Coregonus hoyi
Early Development
88-001817
Predator/Prey Relationships
88-001817
Coregonus lavaretus
Cage Culture
88-001199
Culture/Propagation
88-001199
Early Development
88-001516
Eggs
88-001516
Embryology
88-001429
Environmental Factors
88-001516
Feeding Experiments
88-001199
Fingerling Production
88-001199
Life History/General
88-001741
88-001745
Physiology
88-001516
Pond Culture
88-001199
Season
88-001516
Stock Assessment
88-001741
Temperature
88-001429
88-001516
Coregonus lavaretus maraena
Culture/Propagation
88-001249
Pond Culture
88-001249
Water Quality
88-001249
Coregonus peled
Fish Stocks
88-001622
88-001622

...CONTINUED...
Coregonus peled
Foods/Feeding
88-001810
Genetics
88-001622
Heterozygosity
88-001622
Life History/General
88-001810
Population Genetics
88-001622
Trophic Relationships
88-001810
Coryphaenoides armatus
Adrenaline
88-001551
Calcium
88-001551
Cardio-Vascular System
88-001551
Pressure Effects
88-001551
Cottidae
Behavior
88-001710
Foods/Feeding
88-001710
Modeling
88-001710
Cottocomephorus grewingki
Distribution/Geographical
88-001784
Habitat Selection
88-001784
Spawning
88-001784
Cottus bairdi
Habitat Selection
88-001432
Metabolism
88-001432
Microhabitat
88-001432
Cottus cognatus
Mate Selection
88-001707
Crenicichla saxatilis
Taxonomy
88-001896
Cryptopsaras couesi
Distribution/Geographical
88-001861
Length-Weight Relationships
88-001861
Morphology
88-001861
Ctenopharyngodon idella
Aquatic Plant Control
88-002164
Control/Biological
88-002164
Culture/Propagation
88-001269
Esterase Isozymes
88-001625
Foods/Feeding
88-001812
Genetic Markers
88-001625
Management/Research--General
88-002164
Marking/Tagging/Genetic Markers
88-001625
Pond Culture
88-001269
Samplers/Stomach
88-001812

...CONTINUED...
Ctenopharyngodon idella
Stomach Fullness
88-001812
Curimata spilota
New Species
88-001901
Curimata stigmosa
New Species
88-001901
Curinata kneri
Growth
88-001842
Cynolebias nigripinnis
Embryology
88-001406
Cynoscion nebulosus
Ammonia
88-002061
Artemia
88-001289
Brachionus plicatilis
88-001289
Culture/Propagation
88-001289
Diets
88-001289
Feeding Experiments
88-001289
Food Conversion Efficiency
88-001289
Forage Production
88-001289
Nitrite
88-002061
Cynoscion xanthulus
Hormones
88-001559
Induced Maturation
88-001559
Spawning
88-001559
Cyprinidae
Age/Growth
88-001346
Barbels
88-001322
Early Development
88-001346
Foods/Feeding
88-001358
Habitat Selection
88-001677
Mouth Size
88-001346
Taste Buds
88-001322
Taste Reception
88-001358
Cyprinodon pecosensis
Aggressive Behavior
88-001699
Competition
88-001699
Crowding
88-001699
Population Studies
88-001699
Reproduction
88-001699
Spawning Behavior
88-001699
Substrate Composition
88-001699
Territorial Behavior
88-001699
Cyprinodon variegatus
Aggressive Behavior
88-001688

...CONTINUED...
Cyprinodon variegatus
Biosorption
88-002102
Cadmium
88-002102
Carcinogens
88-002083
Early Development
88-002102
Eggs
88-002102
Embryology
88-002102
Enzymes
88-002087
Heavy Metals
88-002102
Learning
88-001688
Metabolism
88-002087
Methylcholanthrene
88-002087
Parasites/Diseases
88-002083
Social Behavior
88-001688
Techniques/Chromosome Preparation
88-001624
Toxins
88-002087
88-002102
Tumors
88-002083
Cyprinus
Taxonomy
88-001905
Cyprinus carpio
Acidosis
88-001500
Aeromonas hydrophila
88-001924
Ammonia
88-001243
Antibodies
88-001924
Auditory Senses
88-001656
Bacterial Diseases
88-001924
Carbon Dioxide
88-001519
Commercial Fishing
88-002391
Culture/Propagation
88-001247
88-001249
88-001259
88-001262
88-001269
88-001271
Dactylogyrus
88-001996
Diets
88-001271
Digestive System
88-001339
Diplozoon
88-001996
Distribution/Geographical
88-001848
Early Development
88-001365
88-001500
88-002076
Electrophoresis
88-001379

...CONTINUED...
Cyprinus carpio
Embryology
88-001365
88-002076
Enzymes
88-001448
Foods/Feeding
88-001656
Harvest
88-002391
Hematology
88-001519
Histology
88-001365
Hormones
88-001426
Hybridization
88-001426
Immunoglobulins
88-001379
Learning
88-001656
Livestock-Fish Culture
88-001247
Management/Research--Reservoirs
88-002391
Management/Research--Rivers and Streams
88-002332
Musculature
88-001448
Net-Pen Culture
88-001271
Orientation/Homing
88-001656
Osmoregulation
88-001519
Oxygen
88-001519
Parasites/Diseases
88-001924
88-001956
88-001996
pH
88-001448
88-001500
Phosphorus
88-002076
Photoperiodism
88-001339
Pituitary Gland
88-001426
Polyculture
88-001243
88-001247
88-001259
Pond Culture
88-001247
88-001249
88-001259
88-001262
88-001269
Recreational Benefits
88-002332
Spring Viraemia
88-001956
Tank Culture
88-001243
Temperature
88-001339
88-001448
88-001519
Toxins
88-002076
Trematodes
88-001996
Viral Diseases
88-001956

...CONTINUED...
Cyprinus carpio
Water Quality
88-001249
88-001271
Cyprinus carpio communis
Organophosphates
88-002114
Pesticides
88-002114
Phosalone
88-002114
Cyrinodon macularius
Endangered/Threatened Species
88-002506
Dalatias licha
Distribution/Geographical
88-001850
Distribution/Vertical
88-001850
Dascyllus albisella
Abundance/Factors of
88-001756
Age/Growth
88-001756
Colonization
88-001756
Recruitment
88-001756
Dascyllus aruanus
Colonization
88-001871
Growth
88-001871
Habitat Selection
88-001871
Management/Research--Marine
88-001871
Recruitment
88-001871
Species Discrimination
88-001871
Dasyatis pastinaca
Kidneys
88-001327
Osmoregulation
88-001327
Dasyatis sabina
Electroreception
88-001795
Foods/Feeding
88-001795
Predator/Prey Relationships
88-001795
Dicentrarchus labrax
Abnormalities
88-001279
Age/Growth
88-001832
Culture/Propagation
88-001279
88-001285
88-001533
Feeding Attractants
88-001285
Feeding Experiments
88-001285
Feeds
88-001285
88-001533
Foods/Feeding
88-001533
Foods/Feeding/Selectivity
88-001285
Learning
88-001655
Liver
88-001533

...CONTINUED...
Dicentrarchus labrax
Oil Pollution
88-002128
Parasites/Diseases
88-001279
Social Behavior
88-001655
Stress
88-001457
Transportation
88-001457
Vitamins
88-001279
88-001533
Year Class Strength
88-001832
Dionda
Gill Rakers
88-001882
Pharynx
88-001882
Taxonomy
88-001882
Diplodus annularis
Foods/Feeding
88-001814
Diplodus sargus
Foods/Feeding
88-001814
Diplodus vulgaris
Foods/Feeding
88-001814
Dolichopteryx brachyrhynchus
Meristic Studies
88-001873
Morphology
88-001873
Taxonomy
88-001873
Dorosoma cepedianum
Copepoda
88-002290
Foods/Feeding
88-001349
Forage Introductions
88-002290
Management/Research--Reservoirs
88-002351
88-002362
Population Studies
88-002362
Predator/Prey Relationships
88-001691
88-002290
88-002351
Stocking/Introductions
88-002362
Dorosoma petenense
Cooling Reservoirs
88-002389
Copepoda
88-002290
Forage Introductions
88-002290
Harvest
88-002387
Heated Water
88-002389
Management/Research--Reservoirs
88-002360
88-002362
88-002387
88-002389
88-002499
Mortality
88-002387
Population Studies
88-002362

...CONTINUED...
Dorosoma petenense
Population Studies
88-002389
88-002499
Predator/Prey Relationships
88-002290
Production
88-002360
88-002389
Regulations/Size Limits
88-002360
Rotenone
88-002499
Standing Crop
88-002387
Stocking/Introductions
88-002362
Empetrichthys latos latos
Age/Growth
88-001384
Culture/Propagation
88-001384
Endangered/Threatened Species
88-001384
Fecundity
88-001384
Reproduction
88-001384
Reproductive Cycle
88-001384
Engraulis anchoita
Abundance/Factors of
88-001744
Age/Growth
88-001378
88-001825
Biomass
88-001786
Distribution/Geographical
88-001845
Distribution/Vertical
88-001786
Eggs
88-001573
88-001786
88-001845
Foods/Feeding
88-001736
Larvae
88-001573
88-001845
Larval Growth
88-001825
Life History/General
88-001736
88-001744
88-001761
88-001845
Marketing
88-002488
Meristic Studies
88-001352
Morphology
88-001352
Reproduction
88-001408
88-001573
Reproductive Cycle
88-001378
Stock Assessment
88-001744
88-001761
88-001786
Engraulis japonicus
Bird Predation
88-001819
Commercial Fishing
88-001819
...CONTINUED...
Engraulis japonicus
Harvest
88-001819
Management/Research--Marine
88-001819
Predator/Prey Relationships
88-001819
Engraulis mordax
Abundance/Factors of
88-002233
Egg Samplers
88-002233
Reproduction
88-001483
Sampling
88-002233
Season
88-001483
Temperature
88-001483
Epinephelus
Bibliographies
88-002504
Biogeography
88-001750
Life History/General
88-001750
Epinephelus amblycephalus
Fish Lists/Keys
88-001891
Morphology
88-001891
Taxonomy
88-001891
Epinephelus areolatus
Age/Growth
88-002451
Management/Research--Marine
88-002451
Mortality Rates
88-002451
Epinephelus bleekeri
Age/Growth
88-002451
Fish Lists/Keys
88-001890
Management/Research--Marine
88-002451
Morphology
88-001890
Mortality Rates
88-002451
Taxonomy
88-001890
Epinephelus caeruleopunctatus
Fish Lists/Keys
88-001890
Morphology
88-001890
Taxonomy
88-001890
Epinephelus chlorostigma
Age/Growth
88-002451
Management/Research--Marine
88-002451
Mortality Rates
88-002451
Epinephelus cometae
Fish Lists/Keys
88-001891
Morphology
88-001891
Taxonomy
88-001891
Epinephelus fasciatus
Fish Lists/Keys
88-001891

...CONTINUED...
Epinephelus fasciatus
Morphology
88-001891
Taxonomy
88-001891
Epinephelus fuscoguttatus
Fish Lists/Keys
88-001890
Morphology
88-001890
Taxonomy
88-001890
Epinephelus heniochus
Fish Lists/Keys
88-001891
Morphology
88-001891
Taxonomy
88-001891
Epinephelus jayakari
Age/Growth
88-002451
Management/Research--Marine
88-002451
Mortality Rates
88-002451
Epinephelus latifasciatus
Age/Growth
88-002451
Management/Research--Marine
88-002451
Mortality Rates
88-002451
Epinephelus malabaricus
Fish Lists/Keys
88-001890
Morphology
88-001890
Parasites/Diseases
88-001909
Taxonomy
88-001890
Epinephelus microdon
Fish Lists/Keys
88-001890
Morphology
88-001890
Taxonomy
88-001890
Epinephelus morrhua
Fish Lists/Keys
88-001891
Morphology
88-001891
Taxonomy
88-001891
Epinephelus ongus
Fish Lists/Keys
88-001890
Morphology
88-001890
Taxonomy
88-001890
Epinephelus poecilonotus
Fish Lists/Keys
88-001891
Morphology
88-001891
Taxonomy
88-001891
Epinephelus sexfasciatus
Fish Lists/Keys
88-001891
Morphology
88-001891
Taxonomy
88-001891
Epinephelus striatus
Spawning Behavior
88-001664
Epinephelus tauvina
Age/Growth
88-002451
Bacterial Diseases
88-001278
Cage Culture
88-001278
Catch Per Unit Effort
88-002473
Culture/Propagation
88-001278
Fish Lists/Keys
88-001890
Management/Research--Marine
88-002451
88-002473
Modeling
88-002473
Morphology
88-001890
Mortality Rates
88-002451
Parasites/Diseases
88-001278
Population Studies
88-002473
Pseudomonas anguilliseptica
88-001278
Stock Assessment
88-002473
Taxonomy
88-001890
Yield
88-002473
Epinephelus undulosus
Fish Lists/Keys
88-001891
Morphology
88-001891
Taxonomy
88-001891
Eptatretus bischofii
Distribution/Geographical
88-001903
Egg Size
88-001903
Taxonomy
88-001903
Variation Studies
88-001903
Eptatretus cirrhatus
Blood Pressure
88-001440
Cardio-Vascular System
88-001440
Eptatretus nanii
Distribution/Geographical
88-001903
Egg Size
88-001903
New Species
88-001903
Taxonomy
88-001903
Variation Studies
88-001903
Eptatretus polytrema
Distribution/Geographical
88-001903
Egg Size
88-001903
Taxonomy
88-001903
Variation Studies
88-001903

Ernogrammus walkeri
Distribution/Geographical
88-001886
Morphology
88-001886
New Species
88-001886
Taxonomy
88-001886
Esox
Ecological Analysis
88-002372
Management/Research--Reservoirs
88-002372
Population Studies
88-002372
Stocking/Introductions
88-002372
Esox lucius
Age/Growth
88-002227
Angling
88-001768
Bioenergetics
88-001442
Cage Culture
88-001199
Cestodes
88-001988
Culture/Propagation
88-001199
Feeding Experiments
88-001199
Fingerling Production
88-001199
Foods/Feeding
88-001442
88-001685
Harvest
88-001768
Heavy Metals
88-002094
Management/Research--Reservoirs
88-002360
Mercury
88-002094
Metabolism
88-001433
Mouth Parts
88-001685
Mouth Size
88-001685
Nervous System
88-001433
Parasites/Diseases
88-001955
88-001988
Photoreception
88-001433
Pineal Body
88-001433
Pond Culture
88-001199
Population Studies
88-001768
Predator/Prey Relationships
88-001442
88-001685
Production
88-002360
Regulations/Size Limits
88-002360
Rhabdovirus
88-001955
Swimming Performance
88-001442
Techniques/Tissue Sampling
88-002094

...CONTINUED...
Esox lucius
Viral Diseases
88-001955
Esox masquinongy
Economic Values
88-002350
Fishing Tournaments
88-002350
Habitat Selection
88-002223
Life History/General
88-002223
Modeling
88-002223
Planning
88-002350
Supplemental Stocking
88-002350
Etheostoma
Distribution/Geographical
88-001857
Etheostoma lepidum
Hybridization
88-001634
Etheostoma spectabile
Hybridization
88-001634
Etroplus maculatus
Aggressive Behavior
88-001735
Behavior
88-001735
Foods/Feeding
88-001735
Modeling
88-001735
Territorial Behavior
88-001735
Etropus peruvianus
Distribution/Geographical
88-001865
Eugerres plumieri
Blood Chemistry
88-001554
Gills
88-001554
Ionic Regulation
88-001554
Osmoregulation
88-001554
Euthynnus affinis
Distribution/Geographical
88-001867
Eutropius niloticus
Electrophoresis
88-001621
Evolution
88-001621
Variation Studies
88-001621
Exoglossum laurae
Distribution/Geographical
88-001848
Exoglossum maxillingua
Distribution/Geographical
88-001848
Fugu niphobles
Digestive System/Bacterial Flora
88-001592
Vibrio
88-001592
Fugu vermicularis
Digestive System/Bacterial Flora
88-001592
Vibrio
88-001592
Fundulus grandis
Enzymes
88-002087

...CONTINUED...
Fundulus grandis
Metabolism
88-002087
Methylcholanthrene
88-002087
Photoperiodism
88-001480
Reproductive Cycle
88-001480
Spawning
88-001479
88-001480
Toxins
88-002087
Fundulus heteroclitus
Biochemical Composition
88-001647
Egg Composition
88-001527
Eggs
88-001456
88-001527
Embryology
88-002132
88-002132
Fecundity
88-001456
Gall Bladder
88-001411
Maturation
88-001527
Mutagens
88-002132
Osmoregulation
88-001456
Tributyltin
88-002132
Fundulus parvipinnis
Life History/General
88-001739
Gadopsis bispinosus
DNA
88-001645
Enzymes
88-001645
Gadopsis marmoratus
DNA
88-001645
Enzymes
88-001645
Gadus macrocephalus
Age/Growth
88-001834
Otoliths
88-001834
Scales
88-001834
Gadus morhua
Adrenaline
88-001551
Age/Growth
88-001588
Amino Acids
88-001443
Biological Indicators
88-002008
Biological Monitoring
88-002008
Calcium
88-001551
Carbohydrates
88-001389
Cardio-Vascular System
88-001551
Chlorinated Hydrocarbons
88-002077
88-002130

...CONTINUED...
Gadus morhua
Culture/Propagation
88-001284
DDE
88-002130
DDT
88-002130
Diets
88-001284
Digestion Rate
88-001283
Early Development
88-001581
88-001588
88-001997
88-001998
88-002010
88-002024
88-002033
Egg Composition
88-001443
Eggs
88-001581
88-001997
88-001998
88-002008
88-002024
88-002033
Embryology
88-001443
88-001581
88-001997
88-001998
88-002010
88-002024
88-002033
88-002070
Enzymes
88-001283
88-002010
Fatty Acids
88-001998
Food Digestibility
88-001283
Foods/Feeding
88-001283
88-001284
88-001584
Foods/Feeding/Selectivity
88-001800
Hydrocarbons
88-002070
Immune Response
88-002010
Larval Behavior
88-001584
Light
88-001588
Management/Research--Marine
88-002427
Mucous Cells
88-001997
Nets/Misc.
88-002200
Nets/Trawls
88-002200
Oil Pollution
88-001997
88-001998
88-002008
88-002010
88-002024
88-002033
88-002070
Osmoregulation
88-002024
Oxygen
88-001443

...CONTINUED...
Gadus morhua
Oxygen
88-001581
88-002033
Pandalus borealis
88-001800
Pesticides
88-002130
Polychlorinated Biphenyls
88-002130
Population Studies
88-002427
88-002427
Predator/Prey Relationships
88-001800
Pressure Effects
88-001551
Proportional Stock Density
88-002427
Reproduction
88-002130
Respiration
88-001581
Sampling
88-002427
Shrimp
88-001800
Stock Assessment
88-002427
Survival
88-002008
Techniques/Musculature
88-001389
Temperature
88-001588
88-002008
Galaxias brevipinnis
Foods/Feeding/Selectivity
88-001806
Galeus melastomus
Distribution/Geographical
88-001850
Distribution/Vertical
88-001850
Gambusia affinis
Age/Growth
88-001404
88-001606
Bioenergetics
88-001606
88-002322
Biosorption
88-002105
Cadmium
88-002053
Copper
88-002053
Electrophoresis
88-002053
Foods/Feeding
88-001606
Genetic Fitness
88-002053
Heavy Metals
88-002053
88-002105
Life History/General
88-002399
Management/Research--Estuaries
88-002399
Maturation
88-001404
88-001606
Metal Tolerance
88-002053
Mosquito Control
88-002399

...CONTINUED...
Gambusia affinis
Reproduction
88-001606
Sexual Dimorphism
88-001404
Temperature
88-001606
Toxins
88-002105
Trophic Relationships
88-002322
Zinc
88-002105
Gasterosteus aculeatus
Aggressive Behavior
88-001672
Albinism
88-001623
Behavior
88-002259
Cannibalism
88-002259
Competition
88-001672
Defensive Behavior
88-002259
Foods/Feeding/Selectivity
88-001666
88-001684
Interspecies Relationships
88-001696
Modeling
88-002259
Myxosporidia
88-001948
Parasites/Diseases
88-001948
Parental Behavior
88-001729
Pigmentation
88-001623
Predator/Prey Relationships
88-001684
88-001729
Proliferative Kidney Disease
88-001948
88-001948
Protozoan Diseases
88-001948
Reproduction
88-002259
Sphaerospora
88-001948
Territorial Behavior
88-001672
Gasterosteus wheatlandi
Behavior
88-002259
Cannibalism
88-002259
Defensive Behavior
88-002259
Foods/Feeding/Selectivity
88-001666
Modeling
88-002259
Reproduction
88-002259
Gerres ovatus
Life History/General
88-002399
Management/Research--Estuaries
88-002399
Mosquito Control
88-002399
Gibbonsia elegans
Coloration
88-001359

...CONTINUED...
Gibbonsia elegans
Crypsis
88-001359
Foods/Feeding
88-001359
Gila bicolor
Myxosporidia
88-001948
Parasites/Diseases
88-001948
Proliferative Kidney Disease
88-001948
Protozoan Diseases
88-001948
Sphaerospora
88-001948
Ginglymostoma perezii
Acoustico-Lateralis System
88-001704
Olfaction
88-001704
Vision
88-001704
Glossogobius giurus
Aeromonas hydrophila
88-001927
Bacterial Diseases
88-001927
Lesions
88-001927
Parasites/Diseases
88-001927
Ulcers
88-001927
Glyptocephalus cynoglossus
Distribution/Geographical
88-001740
Population Studies
88-001740
Gnathonemus petersii
Aquariums
88-001504
Culture/Propagation
88-001504
Electrophysiology
88-001504
Electroreception
88-001504
Gobiidae
Distribution/Geographical
88-001889
Head
88-001889
Taxonomy
88-001889
Variation Studies
88-001889
Gobio gobio
Maturation
88-001493
Reproductive Cycle
88-001493
Gorgasia
Distribution/Vertical
88-001701
Foods/Feeding
88-001701
Trophic Relationships
88-001701
Gymnocephalus cernua
Environmental Factors
88-002012
Population Studies
88-002012
Pulp Mill Effluents
88-002012
Sulfides
88-002012
Halaelurus clevai
New Species
88-001899
Halichoeres
Foods/Feeding
88-001369
Mouth Parts
88-001369
Haplochromis ahli
Aquariums
88-001748
Behavior
88-001748
Culture/Propagation
88-001748
Life History/General
88-001748
Hemitripterus americanus
Oxygen
88-001454
Temperature
88-001454
Heterandria formosa
Age/Growth
88-001829
Reproduction
88-001829
Temperature
88-001829
Variation Studies
88-001829
Heterobranchus bidorsalis
Culture/Propagation
88-001912
Disease-Free Culture
88-001912
Parasites/Diseases
88-001912
Heterodontus
Cardio-Vascular System
88-001507
Heteropneustes fossilis
Ammonia
88-001243
Bacteria
88-001243
Culture/Propagation
88-001243
Tank Culture
88-001243
Hiodon alosoides
Life History/General
88-001754
Hippoglossina bollmani
Distribution/Geographical
88-001865
Hippoglossina macrops
Analysis of Variance
88-002240
Meristic Studies
88-002240
Taxonomy
88-002240
Hippoglossus hippoglossus
Bacteria
88-001273
Bacterial Diseases
88-001273
Culture/Propagation
88-001273
Disease-Free Culture
88-001273
Drinking Behavior
88-001602
Early Development
88-001581
88-001602

...CONTINUED...
Hippoglossus hippoglossus
Eggs
88-001581
Embryology
88-001581
Osmoregulation
88-001602
Oxygen
88-001581
Parasites/Diseases
88-001273
Respiration
88-001581
Tank Culture
88-001273
Vibrio
88-001273
Water Intake
88-001602
Hippoglossus stenolepis
Management/Research--Marine
88-002437
Histiobranchus bathybius
Adrenaline
88-001551
Calcium
88-001551
Cardio-Vascular System
88-001551
Pressure Effects
88-001551
Holacanthus tricolor
Eggs
88-001492
Hydration
88-001492
Hoplostethus atlanticus
Aggressive Behavior
88-001783
Dispersal
88-001783
Distribution/Vertical
88-001783
Fecundity
88-001544
Otoliths
88-001328
Reproduction
88-001783
Spawning
88-001783
Hybognathus
Gill Rakers
88-001882
Pharynx
88-001882
Taxonomy
88-001882
Hybognathus placitus
Reproductive Cycle
88-001511
Water Level Fluctuations
88-001511
Hypentelium nigricans
Blood Chemistry
88-001601
Hematology
88-001601
pH
88-001601
Hypophthalmichthys molitrix
Culture/Propagation
88-001259
88-001262
88-001269
88-001272
Gynogenesis
88-001531
...CONTINUED...
Hypophthalmichthys molitrix
Polyculture
88-001259
88-001272
Pond Culture
88-001259
88-001262
88-001269
Sex Reversal
88-001531
Shock
88-001531
Steroids
88-001531
Hypsoblennius minutus
Taxonomy
88-001875
Hypsypops rubicunda
Behavior
88-001724
Coloration
88-001724
Mate Selection
88-001724
Spawning
88-001724
Ichthyomyzon fossor
Currents
88-001654
Endangered/Threatened Species
88-001654
Habitat Selection
88-001654
Substrate Composition
88-001654
Ictalurus
Management/Research--Rivers and Streams
88-002332
Recreational Benefits
88-002332
Ictalurus furcatus
Culture/Propagation
88-001270
Nursery Areas
88-001270
Polyculture
88-001270
Supplemental Stocking
88-001270
Ictalurus nebulosus
Cadmium
88-002026
Cytotoxicity
88-002101
Foods/Feeding
88-001662
Heavy Metals
88-002026
Mutagens
88-002101
Pheromones
88-001662
Population Studies
88-001771
Social Behavior
88-001662
Techniques/Toxicity
88-002101
Temperature Selection
88-002026
Ictalurus punctatus
Age/Growth
88-001523
88-001631
Amino Acids
88-001395

...CONTINUED...
Ictalurus punctatus
Amino Acids
88-001612
Bacterial Diseases
88-001936
Cage Culture
88-001195
88-001251
88-001295
Cell Culture
88-001512
Cottonseed
88-001264
Culture/Propagation
88-001195
88-001251
88-001252
88-001264
88-001295
88-001523
88-001631
88-002288
Cytotoxicity
88-002126
Development/Terminology
88-001523
Edwardsiella ictaluri
88-001936
Enteric Septicemia of Catfish
88-001936
Enzymes
88-002126
Feeds
88-001264
Fingerling Production
88-001295
Flow Regimes
88-002365
Food Conversion Efficiency
88-001264
Foods/Feeding
88-001391
88-001395
88-001612
88-001727
Genetics
88-001631
Gills
88-001466
Growth
88-001195
88-001251
Harvest
88-002365
Kidneys
88-002126
Liver
88-002126
Lymphocytes
88-001512
Management/Research--Lakes
88-002288
Metabolic Rates
88-001395
Metabolism
88-002126
Mitogens
88-001512
Napthoflavone
88-002126
Nitrite
88-002129
Nutrient Requirements
88-001612
Nutrition
88-001612
Parasites/Diseases
88-001936

...CONTINUED...
Ictalurus punctatus
Pineal Body
88-001419
Polyculture
88-001195
88-001252
Pond Culture
88-001252
Population Studies
88-001759
88-002365
Protein Synthesis
88-001395
Proteins
88-001612
Respiration
88-001466
Spawning
88-001419
Spawning Substrates
88-002288
Spawning Techniques
88-002288
Stocking/Introductions
88-001759
Stress
88-001523
Taste Reception
88-001391
88-001617
Temperature
88-001727
Vitamins
88-001523
Xenobiotics
88-002126
Ictiobus bubalus
Management/Research--Reservoirs
88-002364
Population Studies
88-002364
Regulations/Size Limits
88-002364
Ictiobus cyprinellus
Commercial Fishing
88-002391
Harvest
88-002391
Management/Research--Reservoirs
88-002391
Istiophoridae
Distribution/Vertical
88-001858
Early Development
88-001858
Habitat Selection
88-001858
Larval Drift
88-001858
Spawning
88-001858
Isurus
Cardio-Vascular System
88-001514
Jordanella floridae
Glyphosate
88-002086
Permethrin
88-002086
Jordania zonope
Behavior
88-001710
Foods/Feeding
88-001710
Modeling
88-001710
Kathala axillaris
Chromosome Studies
88-001650

...CONTINUED...
Kathala axillaris
Karyotypes
88-001650
Variation Studies
88-001650
Labeo rohita
Ammonia
88-001243
Bacteria
88-001243
Biomagnification
88-002045
Culture/Propagation
88-001243
88-001261
Fertilization/Soil and Water
88-001261
Food Conversion Efficiency
88-001564
Foods/Feeding
88-001564
Growth
88-001261
88-001564
Growth Stimulants
88-001564
Liver
88-002045
Organophosphates
88-002114
Pesticides
88-002114
Phosalone
88-002114
Polyculture
88-001243
Pond Culture
88-001261
Production
88-001261
Respiration
88-002045
Steroids
88-001564
Tank Culture
88-001243
Zinc
88-002045
Labridae
Lateral Line System
88-001372
Laemonema longipes
Liver
88-001461
Wax Esters
88-001461
Lampetra appendix
Currents
88-001654
Endangered/Threatened Species
88-001654
Habitat Selection
88-001654
Substrate Composition
88-001654
Lates calcarifer
Bacterial Diseases
88-001278
Cage Culture
88-001278
Culture/Propagation
88-001278
Hematology
88-001381
Parasites/Diseases
88-001278
Pseudomonas anguilliseptica
88-001278

...CONTINUED...
Lates calcarifer
Starvation
88-001381
Temperature
88-001381
Leiognathidae
Bioluminescence
88-001705
Crypsis
88-001705
Leiopotherapon unicolor
Cardio-Vascular System
88-001446
Oxygen
88-001446
Respiration
88-001446
Temperature
88-001446
Leiostomus xanthurus
Abundance/Factors of
88-001711
Age/Growth
88-001822
Density
88-001794
Distribution/Vertical
88-001794
Fluorescent Pigments
88-002192
Foods/Feeding
88-001822
Foods/Feeding/Selectivity
88-001711
Habitat Selection
88-001711
Marking/Tagging
88-002192
Salinity
88-001711
Stocking Rates
88-001822
Survival
88-001822
Lepisosteus oculatus
Air Breathing
88-001583
88-001585
Exercise
88-001583
Gills
88-001585
Hypoxia
88-001585
Repiratory System
88-001583
Respiratory System
88-001585
Lepomis
Management/Research--Reservoirs
88-002351
Management/Research--Rivers and Streams
88-002332
Predator/Prey Relationships
88-002351
Recreational Benefits
88-002332
Lepomis cyanellus
Cadmium
88-002052
Heavy Metals
88-002052
Hybridization
88-001396
Reproduction
88-001396

...CONTINUED...
Lepomis cyanellus
Stress
88-002052
Temperature
88-002052
Lepomis gibbosus
Biosorption
88-002135
Heavy Metals
88-002135
Life History/General
88-001742
Mercury
88-002135
pH
88-002135
Pollution
88-002135
Selenium
88-002135
Social Behavior
88-001657
Lepomis macrochirus
Digestive System
88-001475
Foods/Feeding
88-001678
Gall Bladder
88-001411
Habitat Selection
88-001678
Hybridization
88-001396
88-001667
Malathion
88-002115
88-002116
Parasites/Diseases
88-001976
Phosphorus
88-001489
Photoperiodism
88-001509
Predator/Prey Relationships
88-001667
88-001678
88-001717
Reproduction
88-001396
88-001509
Reproductive Cycle
88-001509
Season
88-001976
Starvation
88-001475
Trematodes
88-001976
Lepomis microlophus
Reproduction
88-002122
Selenium
88-002122
Leptocottus armatus
Histology
88-001368
Lateral Line System
88-001368
Lethrinus nebulosus
Age/Growth
88-001737
Commercial Fishing
88-001737
Management/Research--Marine
88-001737
Mortality
88-001737

...CONTINUED...
Lethrinus nebulosus
Population Studies
88-001737
Spawning
88-001737
Stock Assessment
88-001737
Leuciscus cephalus
Hybridization
88-001626
Spawning
88-001626
Leuciscus pleurobipunctatus
Hybridization
88-001626
Spawning
88-001626
Limanda ferruginea
Parasites/Diseases
88-001914
Limanda herzensteini
Foods/Feeding
88-001595
Survival
88-001595
Temperature
88-001595
Limanda limanda
Abnormalities
88-001315
Dextrality
88-001315
Eyes
88-001315
Lesions
88-001970
Parasites/Diseases
88-001970
X-Cells
88-001970
Limanda yokohamae
Foods/Feeding
88-001595
Survival
88-001595
Temperature
88-001595
Liza aurata
Bucephalidae
88-001971
Cadmium
88-002050
Culture/Propagation
88-001503
Heavy Metals
88-002050
Induced Maturation
88-001503
Labratrema minimus
88-001971
Parasites/Diseases
88-001971
Pituitary Gland
88-001503
Trematodes
88-001971
Liza dumerili
Bird Predation
88-001695
Oil Pollution
88-001695
Liza ramada
Bucephalidae
88-001971
Labratrema minimus
88-001971
Parasites/Diseases
88-001971

...CONTINUED...
Liza ramada
Trematodes
88-001971
Lobotes surinamensis
Chromosome Studies
88-001650
Karyotypes
88-001650
Variation Studies
88-001650
Lopholatilus chamaeleonticeps
Acoustical Methods
88-002494
Echo Sounder
88-002494
Habitat Evaluation
88-002494
Loricariidae
Operculum
88-001356
Lutjanus coccineus
Catch Per Unit Effort
88-002473
Management/Research--Marine
88-002473
Modeling
88-002473
Population Studies
88-002473
Stock Assessment
88-002473
Yield
88-002473
Lycengraulis batesii
Gill Rakers
88-001313
Variation Studies
88-001313
Macrozoarces americanus
Acoustical Methods
88-002494
Echo Sounder
88-002494
Habitat Evaluation
88-002494
Macruronus novaezelandiae
Early Development
88-001347
Eggs
88-001347
Makaira nigricans
Age/Growth
88-001830
Age/Length Composition
88-001830
Management/Research--Marine
88-001830
Otoliths
88-001830
Malacocephalus laevis
Pigments
88-001546
Vision
88-001546
Malacoctenus hubbsi
Mate Selection
88-001716
Sexual Dimorphism
88-001716
Malacoctenus macropus
Mate Selection
88-001716
Sexual Dimorphism
88-001716
Malapterurus electricus
Social Behavior
88-001719
Megalops atlanticus
Chromosome Numbers
88-001630
Evolution
88-001630
Karyotypes
88-001630
Melanogrammus aeglefinus
Age/Length Composition
88-001542
Culture/Propagation
88-001281
Distribution/Geographical
88-001542
Distribution/Seasonal
88-001542
Nets/Misc.
88-002200
Nets/Trawls
88-002200
Reproduction
88-001542
Spawning
88-001542
Temperature Selection
88-001542
Transportation
88-001281
Menidia beryllina
Management/Research--Reservoirs
88-002351
88-002360
Predator/Prey Relationships
88-002351
Production
88-002360
Regulations/Size Limits
88-002360
Stocking/Introductions
88-002351
Menidia menidia
Defensive Behavior
88-001714
Predator/Prey Relationships
88-001714
Schooling Behavior
88-001714
Mentiperca
Taxonomy
88-001894
Merlangius merlangus
Chlorinated Hydrocarbons
88-002130
DDE
88-002130
DDT
88-002130
Pesticides
88-002130
Polychlorinated Biphenyls
88-002130
Reproduction
88-002130
Merluccius merluccius
Food Technology
88-002492
Lernaeocera
88-001962
Parasites/Diseases
88-001962
Parasitic Copepods
88-001962
Storage Effects
88-002492
Merluccius productus
Carcass Traits
88-002491

...CONTINUED...
Merluccius productus
Fish as Food
88-002491
Kudoa paniformes
88-002491
Kudoa thyrsitis
88-002491
Myxosporidia
88-002491
Parasites/Diseases
88-002491
Microgadus tomcod
Culture/Propagation
88-001282
Hatching Rates
88-001282
Spawning Techniques
88-001282
Micromesistius poutassou
Histology
88-001337
Maturation
88-001337
Reproduction
88-001337
Reproductive System
88-001337
Micropogonias undulatus
Density
88-001794
Distribution/Vertical
88-001794
Eggs
88-001506
Fluorescent Pigments
88-002192
Marking/Tagging
88-002192
Osmoregulation
88-001506
Micropterus
Management/Research--Reservoirs
88-002356
88-002362
88-002384
Population Studies
88-002356
88-002362
88-002384
Regulations/Size Limits
88-002356
88-002384
Stocking/Introductions
88-002362
Micropterus dolomieui
Acidification
88-002013
Culture/Propagation
88-001248
Fertilization/Soil and Water
88-001248
Flow Regimes
88-002365
Harvest
88-002365
Management/Research--Reservoirs
88-002355
Management/Research--Rivers and Streams
88-002325
88-002332
Plankton
88-001248
Pond Culture
88-001248
Population Studies
88-002365

...CONTINUED...
Micropterus dolomieui
Predator/Prey Relationships
88-001726
Production
88-001248
Recreational Benefits
88-002332
Regulations/Size Limits
88-002355
Reproduction
88-001561
Riparian Habitat
88-002325
Sampling
88-002355
Size Limits
88-002355
Stock Assessment
88-002325
Water Quality
88-001248
Micropterus punctulatus
Management/Research--Reservoirs
88-002355
88-002378
Planning
88-002378
Population Studies
88-002378
Regulations/Size Limits
88-002355
88-002378
Sampling
88-002355
Size Limits
88-002355
Micropterus salmoides
Age/Growth
88-002376
Benzocaine
88-002041
Biosorption
88-002041
Catch Per Unit Effort
88-002366
Cooling Reservoirs
88-002389
Culture/Propagation
88-001244
Distribution/Geographical
88-001844
Electrophoresis
88-001844
Feeds
88-001244
Gene Banks
88-001844
Genetic Strains
88-001844
Harvest
88-002387
88-002388
Heated Water
88-002389
Histology
88-002041
Management/Research--Reservoirs
88-002351
88-002355
88-002357
88-002360
88-002363
88-002366
88-002373
88-002375
88-002376
88-002378

...CONTINUED...
Micropterus salmoides
Management/Research--Reservoirs
88-002387
88-002388
88-002389
88-002395
88-002396
Modeling
88-002396
Mortality
88-002387
Planning
88-002378
88-002395
88-002396
Population Genetics
88-001844
Population Studies
88-001844
88-002357
88-002363
88-002373
88-002378
88-002389
88-002395
Predator/Prey Relationships
88-001717
88-002351
Production
88-002360
88-002363
88-002366
88-002389
Regulations
88-002396
Regulations/Size Limits
88-002355
88-002360
88-002375
88-002378
88-002388
Reservoir Release Effects
88-002363
Sampling
88-002355
Size Limits
88-002355
Standing Crop
88-002387
Stocking/Introductions
88-001844
Supplemental Stocking
88-002357
88-002373
Survival
88-001244
Temperature
88-001244
Water Level Fluctuations
88-002395
Micropterus salmoides floridanus
Age/Growth
88-002270
Management/Research--Lakes
88-002270
Recruitment
88-002270
Stocking/Introductions
88-002195
88-002270
Microstomus pacificus
DNA
88-001515
Lactate Dehydrogenase
88-001515
Muscle Proteins
88-001515
...CONTINUED...
Microstomus pacificus
RNA
88-001515
Moenkhausia dichroura
Light
88-001703
Orientation/Homing
88-001703
Schooling Behavior
88-001703
Swimming Performance
88-001703
Techniques/Light
88-001703
Techniques/Orientation
88-001703
Mora moro
Adrenaline
88-001551
Calcium
88-001551
Cardio-Vascular System
88-001551
Pressure Effects
88-001551
Morone americana
DNA
88-001640
Stock Identification
88-001640
Morone chrysops
Air Breathing
88-001407
Competition
88-001872
Culture/Propagation
88-001301
Early Development
88-001407
Ecological Analysis
88-002372
Foods/Feeding
88-001872
Habitat Selection
88-001787
Harvest
88-002387
Hybridization
88-001301
88-001407
88-001641
88-001667
88-001691
88-001787
88-002392
Incubation
88-001301
Management/Research--Reservoirs
88-002362
88-002372
88-002387
88-002395
Marking/Tagging/Telemetry
88-001787
Mortality
88-002387
Oxygen
88-001787
Planning
88-002395
Population Studies
88-001641
88-002362
88-002372
88-002395
Predator/Prey Relationships
88-001667

...CONTINUED...
Morone chrysops
Predator/Prey Relationships
88-001691
88-001872
Reservoir Release Effects
88-002392
Salinity
88-001407
Standing Crop
88-002387
Stocking/Introductions
88-002362
88-002372
88-002392
Swimbladder
88-001407
Techniques/Incubation
88-001301
Temperature Selection
88-001787
Water Level Fluctuations
88-002395
Morone saxatilis
Air Breathing
88-001407
Cannibalism
88-001203
Cestodes
88-001986
Culture/Propagation
88-001203
88-001248
88-001270
88-001301
Diets
88-001203
Distribution/Geographical
88-002178
Early Development
88-001407
Ecological Analysis
88-002372
Exploitation Rates
88-002178
Fertilization/Soil and Water
88-001248
Foods/Feeding
88-001691
Growth
88-001203
Habitat Selection
88-001787
Harvest
88-002178
88-002387
Hybridization
88-001301
88-001407
88-001641
88-001667
88-001691
88-001787
88-002392
Incubation
88-001301
Induced Maturation
88-001464
Lacistorhynchus tenuis
88-001986
Management/Research--Marine
88-002498
Management/Research--Reservoirs
88-002362
88-002372
88-002387
Marking/Tagging
88-002189

...CONTINUED...
Morone saxatilis
Marking/Tagging/Telemetry
88-001787
Mortality
88-002387
Mortality Factors
88-002189
Nursery Areas
88-001270
Otoliths
88-002498
Oxygen
88-001787
Parasites/Diseases
88-001986
Photoperiodism
88-001464
Plankton
88-001248
Polyculture
88-001270
Pond Culture
88-001248
Population Studies
88-001641
88-002362
88-002372
Predator/Prey Relationships
88-001667
Production
88-001248
Reservoir Release Effects
88-002392
Salinity
88-001407
88-001495
Scales
88-001309
Spawning
88-001464
Standing Crop
88-002387
Stock Assessment
88-002178
88-002498
Stock Identification
88-002498
Stocking/Introductions
88-002362
88-002372
88-002392
Supplemental Stocking
88-001270
Swimbladder
88-001407
Techniques/Chromosome Preparation
88-001624
Techniques/Incubation
88-001301
Temperature
88-001464
88-001464
Temperature Selection
88-001787
Water Quality
88-001248
Mugil liza
Hemiuridae
88-001969
Hysterolecitha brasiliensis
88-001969
Parasites/Diseases
88-001969
Trematodes
88-001969
Mugil ramada
Oil Pollution
88-002044

Mugilidae
Identification
88-001897
Mullus barbatus
Electrophoresis
88-001383
Enzymes
88-001383
Proteins
88-001383
Variation Studies
88-001383
Mullus surmuletus
Electrophoresis
88-001383
Enzymes
88-001383
Proteins
88-001383
Variation Studies
88-001383
Mycteroperca microlepis
Life History/General
88-001410
Reproduction
88-001410
Myliobatus aquila
Oxygen
88-001427
Photoperiodism
88-001427
Respiration
88-001427
Mylossoma aurea
Gills
88-001355
Hypoxia
88-001355
Oxygen
88-001355
Mylossoma duriventris
Gills
88-001355
Hypoxia
88-001355
Oxygen
88-001355
Myxine glutinosa
Blood Pressure
88-001440
Cardio-Vascular System
88-001440
Nanochromis transvestitus
Aquariums
88-001720
Behavior
88-001720
Culture/Propagation
88-001720
Life History/General
88-001720
Negaprion
Cardio-Vascular System
88-001514
Neosalanx
Taxonomy
88-001904
Neosalanx pseudotaihuensis
Morphology
88-001904
New Species
88-001904
Nicholsina denticulata
Dentition
88-001330
Morphology
88-001330

...CONTINUED...
Nicholsina denticulata
Mouth Parts
88-001330
Nocomis biguttatus
Abundance/Factors of
88-002256
Habitat Selection
88-002256
Hybridization
88-002256
Nocomis micropogon
Abundance/Factors of
88-002256
Distribution/Geographical
88-001848
Habitat Selection
88-002256
Hybridization
88-002256
Noemacheilus barbatula
Interspecies Relationships
88-001696
Notemigonus crysoleucas
Culture/Propagation
88-001286
Diets
88-001286
Forage Production
88-001286
Hybridization
88-001286
Notoscopelus kroyeri
Age/Growth
88-001522
Foods/Feeding
88-001522
Maturation
88-001522
Spawning
88-001522
Notropis
Distribution/Geographical
88-001857
Notropis cardinalis
Distribution/Geographical
88-001893
Habitat Selection
88-001893
Morphology
88-001893
New Species
88-001893
Taxonomy
88-001893
Notropis chrysocephalus
Abundance/Factors of
88-002256
Economic Values
88-002265
Endangered/Threatened Species
88-002265
Habitat Selection
88-002256
Hybridization
88-002256
Management/Research--Lakes
88-002265
Parasites/Diseases
88-001977
Trematodes
88-001977
Uvulifer
88-001977
Notropis pilsbryi
Distribution/Geographical
88-001893
Habitat Selection
88-001893

...CONTINUED...
Notropis pilsbryi
Morphology
88-001893
Taxonomy
88-001893
Notropis rubellus
Abundance/Factors of
88-002256
Habitat Selection
88-002256
Hybridization
88-002256
Notropis spilopterus
Electrophoresis
88-001644
Genetic Fitness
88-001644
Habitat Evaluation
88-001644
Management/Research--Rivers and Streams
88-001644
Parasites/Diseases
88-001977
Trematodes
88-001977
Uvulifer
88-001977
Notropis zonatus
Distribution/Geographical
88-001893
Habitat Selection
88-001893
Morphology
88-001893
Taxonomy
88-001893
Odondebuenia
Distribution/Geographical
88-001900
Morphology
88-001900
Taxonomy
88-001900
Oligocottus maculosus
Histology
88-001368
Lateral Line System
88-001368
Ompok bimaculatus
Estradiol
88-001543
Kidneys
88-001543
Reproductive System
88-001543
Oncorhynchus
Scales
88-001308
Oncorhynchus gorbuscha
Abundance/Factors of
88-002323
Crowding
88-002323
Foods/Feeding
88-001698
Lepeophtheirus salmonis
88-001981
Management/Research--Rivers and Streams
88-002323
Marking/Tagging/Strontium
88-002188
Movements
88-001698
Parasites/Diseases
88-001981

...CONTINUED...
Oncorhynchus gorbuscha
Parasitic Copepods
88-001981
Oncorhynchus keta
Actomycins
88-001465
Amino Acids
88-001572
Biosorption
88-001572
Carotenoids
88-001465
Histology
88-001572
Hormones
88-001485
Lepeophtheirus salmonis
88-001981
Marking/Tagging/Strontium
88-002188
Musculature
88-001465
Nitrogen
88-001572
Osmoregulation
88-001572
Parasites/Diseases
88-001981
Parasitic Copepods
88-001981
Pigments
88-001465
Salinity
88-001485
88-001572
88-001572
Thyroid Gland
88-001485
Oncorhynchus kisutch
Actomycins
88-001465
Administrative Reports
88-002333
Age/Growth
88-001425
Aggressive Behavior
88-001721
Aromatic Hydrocarbons
88-002056
Bacterial Diseases
88-001941
Bioassay Techniques
88-002090
Biomagnification
88-002056
Blood Chemistry
88-001529
88-001547
Carotenoids
88-001465
Catecholamines
88-001439
Clearcutting
88-002302
Competition
88-001708
Condition Factors
88-001458
Corticosteroids
88-001547
Cortisol
88-001547
Cyclohexane
88-002090
Distribution/Geographical
88-001789
El Nino
88-001305

...CONTINUED...
Oncorhynchus kisutch
Electrophoresis
88-001646
Enzymes
88-001529
Exercise
88-001529
Fishery Management Councils
88-002333
Forestry Practices
88-002302
Gene Polymorphism
88-001646
Growth Hormone
88-001425
Growth Stimulants
88-001425
Habitat Selection
88-001708
Hormones
88-001425
88-001547
88-001594
Hydrocarbons
88-002090
Immune Response
88-001439
Lactate Levels
88-001529
Lactate Metabolism
88-001529
Lepeophtheirus salmonis
88-001981
Life History/General
88-001458
Management/Research--Marine
88-002166
88-002333
88-002460
Marking/Tagging
88-001789
Marking/Tagging/Strontium
88-002188
Movements
88-001789
88-002302
Musculature
88-001465
Nervous System
88-001439
Parasites/Diseases
88-001941
Parasitic Copepods
88-001981
88-001981
Photoperiodism
88-001409
Pigments
88-001465
Pituitary Gland
88-001594
Polychlorinated Biphenyls
88-002056
88-002097
Production
88-002166
88-002460
Salinity
88-001547
Steroids
88-001547
Stock Assessment
88-002166
88-002460
Stocking/Introductions
88-002302
Supplemental Stocking
88-002302

...CONTINUED...
Oncorhynchus kisutch
Temperature
88-001409
Toluene
88-002090
Trophy Fisheries
88-001458
Trout Stream Management
88-002302
Variation Studies
88-001646
Vibrio anguillarum
88-001941
Water Level Fluctuations
88-002302
Oncorhynchus masou
Age/Growth
88-001469
Culture/Propagation
88-001208
88-001469
Ocean Ranching
88-001208
Smolt Transformation
88-001469
Oncorhynchus nerka
Abundance/Factors of
88-002323
Actomycins
88-001465
Carotenoids
88-001465
Crowding
88-002323
Culture/Propagation
88-001220
Homing Behavior
88-001682
Lepeophtheirus salmonis
88-001981
Managment/Research--Rivers and Streams
88-002323
Marking/Tagging/Strontium
88-002188
Musculature
88-001465
Orientation/Homing
88-001682
Parasites/Diseases
88-001981
Parasitic Copepods
88-001981
Pigments
88-001465
Production
88-001220
Spawning Behavior
88-001723
Vision
88-001723
Oncorhynchus tshawytscha
Administrative Reports
88-002333
Anesthetics
88-001728
Bioassay Techniques
88-002090
Blood Chemistry
88-001382
Carotenoids
88-001524
Catecholamines
88-001582
Coloration
88-001524
Condition Factors
88-001458

...CONTINUED...
Oncorhynchus tshawytscha
Cortisol
88-001382
Culture/Propagation
88-001231
88-001382
88-001653
Cyclohexane
88-002090
Diets
88-001231
88-001382
Distribution/Geographical
88-001789
El Nino
88-001305
Electrophoresis
88-001646
88-001653
Enzymes
88-001582
Fecundity
88-001653
Feeds
88-001231
Fertilization
88-001653
Fishery Management Councils
88-002333
Fishing Tournaments
88-002142
Foods/Feeding
88-001382
88-001799
Gene Polymorphism
88-001646
Genetic Strains
88-001210
88-001524
Glucose
88-001382
Growth
88-001210
Habitat Selection
88-001777
Harvest
88-002181
88-002183
Hydrocarbons
88-002090
Learning
88-001728
Lepeophtheirus salmonis
88-001981
Life History/General
88-001458
88-001777
Liver
88-001582
Management/Research--Marine
88-002166
88-002333
88-002460
Marking/Tagging
88-001789
Marking/Tagging/Strontium
88-002188
Metabolism
88-001582
Migration
88-001777
Movements
88-001789
Orientation/Homing
88-001728
Parasites/Diseases
88-001981

...CONTINUED...
Oncorhynchus tshawytscha
Parasitic Copepods
88-001981
Pigments
88-001524
Polychlorinated Biphenyls
88-002097
Production
88-002166
88-002460
Reproduction
88-001653
Size Limits
88-002142
Stock Assessment
88-002166
88-002181
88-002183
88-002460
Stress
88-001382
Survival
88-001210
Techniques/Orientation
88-001728
Toluene
88-002090
Trophy Fisheries
88-001458
Variation Studies
88-001524
88-001646
Ophiocephalus striatus
Aeromonas hydrophila
88-001927
Bacterial Diseases
88-001927
Lesions
88-001927
Parasites/Diseases
88-001927
Ulcers
88-001927
Oplegnathus fasciatus
Parasites/Diseases
88-001957
Viral Diseases
88-001957
Oplegnathus punctatus
Parasites/Diseases
88-001957
Viral Diseases
88-001957
Opsanus tau
Histology
88-001326
Musculature
88-001326
Sound Production
88-001326
Oreochromis
Culture/Propagation
88-001259
Polyculture
88-001259
Pond Culture
88-001259
Oreochromis aureus
Aquatic Plants
88-001811
Distribution/Seasonal
88-001788
Exotic Species
88-001788
88-002186
88-002305
Foods/Feeding
88-001811

...CONTINUED...
Oreochromis aureus
Foods/Feeding
88-001820
Heated Water
88-002305
Life History/General
88-002305
Management/Research--Rivers and Streams
88-002305
Stocking/Introductions
88-002305
Oreochromis mossambicus
Age/Growth
88-001478
Culture/Propagation
88-001287
Diets
88-001287
Digestive System
88-001476
88-001477
88-001565
88-001600
Feeds
88-001287
Glucose
88-001565
Growth
88-001287
Histology
88-001318
Hormones
88-001478
88-001586
Nutrition
88-001565
Osmoregulation
88-001462
88-001476
88-001477
88-001600
Pharynx
88-001318
Pituitary Gland
88-001462
88-001463
Reproductive Cycle
88-001586
Salinity
88-001318
88-001476
Sodium
88-001476
Steroids
88-001586
Variation Studies
88-001318
Oreochromis niloticus
Culture/Propagation
88-001260
88-001912
Disease-Free Culture
88-001912
Foods/Feeding
88-001818
Gene Transfer
88-001627
Histology
88-001318
Parasites/Diseases
88-001912
Pharynx
88-001318
Polyculture
88-001260
Pond Culture
88-001260

...CONTINUED...
Oreochromis niloticus
Salinity
88-001318
Stocking Rates
88-001260
Variation Studies
88-001318
Oreoleuciscus
Meristic Studies
88-002214
Modeling
88-002214
Taxonomy
88-002214
Orthodon microlepidotus
Foods/Feeding/Selectivity
88-001693
Oryzias latipes
Carcinogens
88-002083
Enzymes
88-002087
Metabolism
88-002087
Methylcholanthrene
88-002087
Parasites/Diseases
88-002083
Toxins
88-002087
Tumors
88-002083
Pagothenia borchgrevinki
Gill Diseases
88-001972
Parasites/Diseases
88-001972
X-Cells
88-001972
Pagrus major
Early Development
88-001780
Histology
88-001780
Parasites/Diseases
88-001957
Reproductive System
88-001780
Sex Ratios
88-001780
Sexual Maturity
88-001780
Viral Diseases
88-001957
Palmatochromis subocellatus kribensis
Territorial Behavior
88-001735
Paracottus kessleri
Distribution/Geographical
88-001784
Habitat Selection
88-001784
Spawning
88-001784
Paracottus kneri
Distribution/Geographical
88-001784
Habitat Selection
88-001784
Spawning
88-001784
Paralabrax clathratus
Electrophysiology
88-001610
Fecundity
88-001420
Nervous System
88-001610

...CONTINUED...
Paralabrax clathratus
Vision
88-001610
Paralabrax nebulifer
Electrophysiology
88-001610
Fecundity
88-001420
Nervous System
88-001610
Vision
88-001610
Paralichthys microps
Analysis of Variance
88-002240
Meristic Studies
88-002240
Taxonomy
88-002240
Parophrys vetulus
Aromatic Hydrocarbons
88-002058
Biological Monitoring
88-002058
Carcinogens
88-002095
88-002098
Hypoxia
88-001390
Oxygen
88-001390
Parasites/Diseases
88-002095
88-002098
Pollution
88-002098
Respiration
88-001390
Tumors
88-002095
Parotocinclus
Distribution/Geographical
88-001898
Parotocinclus polyochrus
Distribution/Geographical
88-001898
Morphology
88-001898
New Species
88-001898
Taxonomy
88-001898
Pelmatochromis subocellatus kribensis
Aggressive Behavior
88-001735
Behavior
88-001735
Foods/Feeding
88-001735
Modeling
88-001735
Pelotretis flavilatus
Foods/Feeding
88-001804
Peltorhamphus novaezeelandiae
Foods/Feeding
88-001804
Peprilus burti
Forecasting
88-002466
Harvest
88-002466
Lunar Influences
88-002466
Management/Research--Marine
88-002466
Maximum Sustainable Yield
88-002466
Perca flavescens
Acid Precipitation
88-002245
Biosorption
88-002135
Chlorinated Dibenzo-p-Dioxins
88-002124
Climate
88-001763
Heavy Metals
88-002135
Mercury
88-002135
Modeling
88-002245
Mortality Factors
88-002124
pH
88-002135
88-002245
Pollution
88-002135
Predator/Prey Relationships
88-001661
Selenium
88-002135
TCDD
88-002124
Water Level Fluctuations
88-001763
Year Class Strength
88-001763
Perca fluviatilis
Acidification
88-002022
Age/Growth
88-001838
Age/Length Composition
88-001838
Blood Chemistry
88-001605
Distribution/Seasonal
88-001838
Distribution/Vertical
88-001838
Early Development
88-001838
Environmental Factors
88-002012
Foods/Feeding/Selectivity
88-001838
Habitat Selection
88-001838
Myxosporidia
88-001951
Osmoregulation
88-001605
Parasites/Diseases
88-001951
Population Studies
88-002012
Potassium
88-001605
Protozoan Diseases
88-001951
Pulp Mill Effluents
88-002012
Scoliosis
88-001951
Sodium
88-001605
Stress
88-001605
Sulfides
88-002012
Triangula percae
88-001951

Percina caprodes
Hybridization
88-001634
Percina caprodes carbonaria
Hybridization
88-001634
Percina maculata
Culture/Propagation
88-001694
Hybridization
88-001694
Spawning Behavior
88-001694
Percina shumardi
Culture/Propagation
88-001694
Hybridization
88-001694
Spawning Behavior
88-001694
Percopsis omiscomaycus
Electrophoresis
88-002381
Management/Research--Reservoirs
88-002381
Morphology
88-002381
Predator/Prey Relationships
88-002381
Petromyzon marinus
Bisazir
88-001377
Chemosterilants
88-001377
Pheromones
88-001373
Reproduction
88-001373
88-001377
Steroids
88-001373
Phoxinus phoxinus
Bird Predation
88-001718
Foods/Feeding
88-001718
Foods/Feeding/Selectivity
88-001718
Fright Behavior
88-001718
Predator/Prey Relationships
88-001718
Piaractus
Foods/Feeding
88-001333
Mouth Parts
88-001333
Pimephales notatus
Foods/Feeding
88-001706
Parasites/Diseases
88-001977
Predator/Prey Relationships
88-001706
Shoaling Behavior
88-001706
Trematodes
88-001977
Uvulifer
88-001977
Pimephales promelas
Age/Growth
88-002119
Alarm Reaction
88-001587
Alarm Substances
88-001587

...CONTINUED...

Pimephales promelas
Chlorpyrifos
88-002088
Copper
88-002119
Culture/Propagation
88-001247
Endrin
88-002088
Enzymes
88-002087
Fenvalerate
88-002088
Livestock-Fish Culture
88-001247
Metabolism
88-002087
Methylcholanthrene
88-002087
Pesticides
88-002088
pH
88-001587
Polyculture
88-001247
Pond Culture
88-001247
Toxicology
88-002088
Toxins
88-002087
Plagopterus argentissimus
Endangered/Threatened Species
88-002505
Life History/General
88-002505
Planiloricaria cryptodon
Life History/General
88-001887
Taxonomy
88-001887
Platichthys flesus
Chlorinated Hydrocarbons
88-002130
DDE
88-002130
DDT
88-002130
Embryology
88-002070
Hydrocarbons
88-002070
Oil Pollution
88-002070
Pesticides
88-002130
Polychlorinated Biphenyls
88-002130
Reproduction
88-002130
Platichthys stellatus
Aromatic Hydrocarbons
88-002058
Biological Monitoring
88-002058
Blood Chemistry
88-001529
Enzymes
88-001529
Exercise
88-001529
Lactate Levels
88-001529
Lactate Metabolism
88-001529
Plecoglossus altivelis
Age/Growth
88-001839

...CONTINUED...
Plecoglossus altivelis
Bacterial Diseases
88-001929
88-001930
Biogeography
88-001344
Histology
88-001929
Immunization
88-001929
Otoliths
88-001839
Parasites/Diseases
88-001929
88-001930
Scales
88-001344
Treatment
88-001929
Variation Studies
88-001344
Vibrio anguillarum
88-001929
88-001930
Vibriosis
88-001929
88-001930
Pleuronectes platessa
Early Development
88-002000
Eggs
88-001455
88-002000
Embryology
88-001455
88-002000
88-002070
Enzymes
88-001455
Estuaries
88-002400
Hydrocarbons
88-002070
Metabolic Rates
88-001455
Migration
88-002400
Mortality Factors
88-002000
Oil Pollution
88-002000
88-002070
Osmoregulation
88-001455
88-002000
pH
88-001455
Salinity
88-001455
Temperature
88-001455
Tides
88-002400
Pleuronectidae
Taxonomy
88-001883
Zoogeography
88-001883
Plotosus anguillaris
Barbels
88-001336
Nervous System
88-001336
88-001520
Rostral Gland
88-001520
Taste Buds
88-001336

...CONTINUED...
Plotosus anguillaris
Taste Reception
88-001336
88-001520
Poecilia latipinna
Electrophoresis
88-001649
Enzymes
88-002087
Genetic Divergence
88-001649
Genetics
88-001649
Metabolism
88-002087
Methylcholanthrene
88-002087
Population Studies
88-001649
Toxins
88-002087
Variation Studies
88-001649
Poecilia reticulata
Aldehydes
88-002064
Biological Indicators
88-002032
Biomagnification
88-002109
Chemoreception
88-001518
Coloration
88-001638
Culture/Propagation
88-001286
Diets
88-001286
Electrophoresis
88-001638
Enzymes
88-001416
88-002087
Forage Production
88-001286
Genetic Markers
88-001638
Genetic Strains
88-001638
Heterozygosity
88-001638
Light
88-001668
Locomotion
88-001518
Mate Selection
88-001668
88-001689
88-002032
Metabolism
88-002087
Methylcholanthrene
88-002087
Oligochaetes
88-001286
Pollution
88-002032
Polychlorinated Biphenyls
88-002109
88-002118
Predator/Prey Relationships
88-001668
Salinity
88-001416
Social Behavior
88-002032
Techniques/Chemoreception
88-001518

...CONTINUED...
Poecilia reticulata
Toxins
88-002087
Variation Studies
88-001638
Poecilia velifera
Hormones
88-001400
Melanophores
88-001400
Pigments
88-001400
Temperature
88-001400
Poeciliopsis occidentalis occidentalis
Distribution/Geographical
88-002507
Endangered/Threatened Species
88-002507
Life History/General
88-002507
Pogonias cromis
Age/Growth
88-002228
Modeling
88-002228
von Bertalanffy Growth Function
88-002228
Pogonophryne platypogon
Morphology
88-001885
New Species
88-001885
Taxonomy
88-001885
Pollachius virens
Population Studies
88-001767
Recruitment
88-001767
Year Class Strength
88-001767
Polyodon spathula
Foods/Feeding
88-001387
Life History/General
88-001747
Morphology
88-001387
Mouth Parts
88-001387
Physiology
88-001387
Turbulence
88-001747
Yolk-Sac Malformation
88-001747
Pomacentrus amboinensis
Colonization
88-001871
Growth
88-001871
Habitat Selection
88-001871
Management/Research--Marine
88-001871
Recruitment
88-001871
Species Discrimination
88-001871
Pomoxis
Competition
88-001872
Foods/Feeding
88-001872
Harvest
88-002387

...CONTINUED...
Pomoxis
Management/Research--Reservoirs
88-002387
Mortality
88-002387
Predator/Prey Relationships
88-001872
Standing Crop
88-002387
Pomoxis annularis
Flow Regimes
88-002365
Harvest
88-002365
Management/Research--Reservoirs
88-002222
88-002351
88-002395
Modeling
88-002222
Planning
88-002395
Population Studies
88-002222
88-002365
88-002395
Predator/Prey Relationships
88-002351
Water Level Fluctuations
88-002395
Porichthys notatus
Bioluminescence
88-001598
Blood Chemistry
88-001598
Enzymes
88-001598
Foods/Feeding
88-001598
Potamorhina latior
Growth
88-001842
Priocharax
New Genus
88-001902
Priocharax ariel
New Species
88-001902
Priocharax pygmaeus
New Species
88-001902
Prionace glauca
Cardio-Vascular System
88-001507
Chafing Behavior
88-001665
Prionobrama filigera
Reproduction
88-001293
Prochilodus nigricans
Growth
88-001842
Prognichthys agoo
Early Development
88-001545
Skeletal System
88-001545
Pseudocrenilabrus multicolor
Bioenergetics
88-001782
Brooding Behavior
88-001782
Oxygen
88-001578
Reproduction
88-001782
Pseudomugil signifer
Life History/General
88-002399

...CONTINUED...
Pseudomugil signifer
Management/Research--Estuaries
88-002399
Mosquito Control
88-002399
Pseudopleuronectes americanus
Antifreeze Production
88-001560
Estuaries
88-002400
Hormones
88-001400
88-001412
Melanophores
88-001400
Migration
88-002400
Oxygen
88-001454
Pigments
88-001400
Pituitary Gland
88-001412
Temperature
88-001400
88-001454
Tides
88-002400
Pseudorasbora parva
Taste Buds
88-001335
Pseudorhombus arsius
Exploitation Rates
88-002404
Length-Weight Relationships
88-002404
Mortality
88-002404
Stock Assessment
88-002404
Pseudotrematomus centronotus
Taxonomy
88-001874
Pseudotrematomus pennellii
Taxonomy
88-001874
Psychrolutes paradoxus
Histology
88-001368
Lateral Line System
88-001368
Pterengraulis atherinoides
Gill Rakers
88-001313
Variation Studies
88-001313
Ptychocheilus oregonensis
Culture/Propagation
88-001299
Disease-Free Culture
88-001299
Recirculating Systems
88-001299
Techniques/Temperature Control
88-001299
Techniques/Water Exchange Rates
88-001299
Techniques/Water Quality
88-001299
Temperature
88-001299
Pungitius pungitius
Foods/Feeding/Selectivity
88-001666
Interspecies Relationships
88-001696
Raja eglanteria
Electric Fish
88-001498

...CONTINUED...
Raja eglanteria
Electric Organs
88-001498
Raja erinacea
Electric Fish
88-001498
Electric Organs
88-001498
Electroreception
88-001537
Hormones
88-001589
Nervous System
88-001537
88-001589
Raja ocellata
Electric Fish
88-001498
Electric Organs
88-001498
Raja radiata
Age/Length Composition
88-001363
Ampullary System
88-001351
Electroreceptors
88-001351
Length-Weight Relationships
88-001364
Maturation
88-001363
Meristic Studies
88-001364
Spawning
88-001363
Variation Studies
88-001351
88-001363
88-001364
Rhamdia guatemalensis
Abnormalities
88-001316
Fin Rays
88-001316
Fins
88-001316
Skeletal System
88-001316
Rhinichthys
Evolution
88-001755
Life History/General
88-001755
Rhinichthys atratulus
Distribution/Geographical
88-001848
Fins
88-001311
Meristic Studies
88-001311
Variation Studies
88-001311
Rhinichthys cataractae
Fins
88-001311
Habitat Selection
88-001432
Meristic Studies
88-001311
Metabolism
88-001432
Microhabitat
88-001432
Variation Studies
88-001311
Rhinobatos annulatus
Oxygen
88-001427

...CONTINUED...
Rhinobatos annulatus
Photoperiodism
88-001427
Respiration
88-001427
Rhinobatos granulatus
Anthobothrium sasoonense
88-001990
Cestodes
88-001990
Parasites/Diseases
88-001990
Rhinobatos punctifer
New Species
88-001884
Rhombosolea leporina
Foods/Feeding
88-001804
Rhombosolea plebeia
Foods/Feeding
88-001804
Rivulus marmoratus
Early Development
88-002062
Egg Survival
88-002062
Embryology
88-002062
Fecundity
88-002062
Plasticizers
88-002062
Skeletal System
88-002062
Roeboides ilseae
New Species
88-001880
Rutilus frisii kutum
Foods/Feeding
88-001821
Rutilus rutilus
Blood Chemistry
88-001605
Competition
88-001807
Currents
88-001725
Environmental Factors
88-002012
Foods/Feeding
88-001813
Foods/Feeding/Selectivity
88-001807
Habitat Selection
88-001692
Interspecies Relationships
88-001692
Osmoregulation
88-001605
Population Studies
88-001775
88-002012
Potassium
88-001605
Predator/Prey Relationships
88-001807
Pulp Mill Effluents
88-002012
Recruitment
88-001775
Sodium
88-001605
Stress
88-001605
Sulfides
88-002012
Swimming Performance
88-001725

...CONTINUED...
Rutilus rutilus
Year Class Strength
88-001775
Rutilus rutilus lacustris
Meristic Studies
88-001354
Morphology
88-001354
Variation Studies
88-001354
Rutilus rutilus typicus
Meristic Studies
88-001354
Morphology
88-001354
Variation Studies
88-001354
Salmo clarki
Genetic Divergence
88-001636
Habitat Evaluation
88-002319
Management/Research--Rivers and Streams
88-002300
88-002319
Population Studies
88-001757
Predator/Prey Relationships
88-002300
Reservoir Release Effects
88-002319
Stocking/Introductions
88-001757
Stream Improvement/General
88-002319
Tailwaters
88-002319
Trophic Relationships
88-002300
Salmo clarki clarki
Distribution/Geographical
88-001805
Foods/Feeding
88-001805
Salmo gairdneri
Acid Precipitation
88-002081
Acidosis
88-001453
88-001596
Adrenaline
88-001597
Aeromonas salmonicida
88-001915
88-001917
Age/Growth
88-001343
88-001398
88-001530
88-001628
Aluminum Sulphate
88-002081
Ammonia
88-001615
Aroclor 1254
88-002055
Aromatic Hydrocarbons
88-002055
Arsenic
88-002057
Astaxanthin
88-001375
Bacterial Diseases
88-001915
88-001917
88-001921

...CONTINUED...
Salmo gairdneri
Bacterial Diseases
88-001923
88-001925
88-001926
88-001931
88-001933
88-001939
88-001940
88-001941
Benzocaine
88-002041
Biosorption
88-002041
88-002057
88-002082
Blood Chemistry
88-001338
88-001393
88-001414
88-001467
Brood Stocks
88-001209
Cage Culture
88-001195
88-001225
88-001242
Carbon Dioxide
88-001609
Carcinogens
88-002047
Catecholamines
88-001596
Chlorinated Dibenzo-p-Dioxins
88-002123
Chlorinated Hydrocarbons
88-002100
Cholinesterase
88-002039
Chromosome Numbers
88-001651
Circannual Rhythms
88-001632
Coloration
88-001215
88-001447
Condition Factors
88-001458
Corpuscles of Stannius
88-001490
Cortisol
88-001338
88-001397
88-001453
Cryptobia
88-001945
Cryptobia salmositica
88-001945
Culture/Propagation
88-001195
88-001209
88-001215
88-001225
88-001226
88-001232
88-001242
88-001536
88-001614
88-001939
88-001949
Cyanide
88-002099
Diets
88-001232
Dioxin
88-002100
Disease-Free Culture
88-001949

...CONTINUED...
Salmo gairdneri
DNA
88-001226
Early Development
88-001417
88-001486
88-001535
88-001629
88-002057
88-002082
Egg Composition
88-001566
Egg Production
88-001209
Egg Size
88-001628
Egg Survival
88-001417
Eggs
88-001567
Embryology
88-001417
88-001486
88-001629
88-001651
88-002047
Endocrinology
88-001445
Enteric Redmouth Disease
88-001926
88-001931
Enzymes
88-001414
88-001552
88-001609
Estradiol
88-001414
88-001445
Exercise
88-002099
Feeding Experiments
88-001225
Feeds
88-001225
88-001232
Fin Necrosis
88-002059
Flow Regimes
88-002365
Foods/Feeding
88-001393
88-001467
88-001488
88-001530
88-001540
88-001541
88-001616
88-001675
88-001803
88-002057
88-002082
Furan
88-002100
Furunculosis
88-001915
88-001917
Gas Supersaturation
88-001486
Genetic Divergence
88-001636
Genetics
88-001226
88-001632
Gill Diseases
88-002059
Glucose
88-001338

...CONTINUED...
Salmo gairdneri
Glucose
88-001467
Gnotobiotic Development
88-001926
Growth
88-001195
88-001225
88-001232
88-001486
88-002057
88-002082
Growth Depressants
88-002082
Habitat Evaluation
88-002319
Habitat Selection
88-001432
88-001793
Harvest
88-002365
Hatchery/Wild Trout
88-001614
Hatching Rates
88-001417
88-001629
Heavy Metals
88-002057
88-002082
Hematology
88-001453
88-001470
88-001597
88-001615
88-001926
88-001945
88-001946
Heterozygosity
88-001417
88-001628
88-001629
Histology
88-002041
Hormones
88-001397
88-001413
88-001414
88-001593
Hypercapnia
88-001552
88-001609
Immune Response
88-001445
88-001926
Immunization
88-001940
Infectious Pancreatic Necrosis
88-001959
88-001961
Insecticides
88-002039
IPN
88-001961
Kidneys
88-001931
88-001946
Lactate Metabolism
88-001609
Lepeophtheirus salmonis
88-001981
Life History/General
88-001458
88-001774
88-001793
Light
88-001447
Liver
88-001338

...CONTINUED...
Salmo gairdneri
Liver
88-001609
Lunar Influences
88-001434
Lymphomyeloid System
88-002123
Management/Research--Rivers and Streams
88-002300
88-002319
Marking/Tagging/Strontium
88-002188
Maturation
88-001398
88-001536
88-001593
88-001632
Melano-macrophages
88-001470
Melatonin
88-001447
Metabolism
88-001432
88-001467
88-001552
Microhabitat
88-001432
Mirex
88-002055
Mortality Factors
88-002123
Mortality Rates
88-001774
Movements
88-001675
Musculature
88-001215
Myxobolus cerebralis
88-001949
Myxosporidia
88-001948
Nutrient Cycling
88-001242
Nutrients
88-001530
Nutrition
88-001393
Otoliths
88-001343
88-001535
Oxygen
88-001242
88-001242
88-001486
88-001628
Parasites/Diseases
88-001915
88-001917
88-001921
88-001923
88-001925
88-001926
88-001931
88-001933
88-001939
88-001940
88-001941
88-001945
88-001946
88-001948
88-001949
88-001959
88-001961
88-001981
88-002059
Parasitic Copepods
88-001981

...CONTINUED...
Salmo gairdneri
pH
88-001609
Phagocytosis
88-001470
Phosphate
88-001242
Phosphorus
88-001242
Photoperiodism
88-001209
88-001338
88-001413
88-001535
88-001536
Pigmenters
88-001215
Pineal Body
88-001447
Polychlorinated Biphenyls
88-002097
Polyculture
88-001195
Polymorphism
88-001226
Polyploidy
88-001651
Pond Culture
88-001536
Population Studies
88-001757
88-001774
88-002365
Predator/Prey Relationships
88-001675
88-002300
Proliferative Kidney Disease
88-001946
88-001948
Propranolol
88-001552
Protein Metabolism
88-001540
88-001541
Protein Synthesis
88-001488
Proteins
88-001338
88-001566
Protozoan Diseases
88-001946
88-001948
88-001949
Pulp Mill Effluents
88-002059
Put-Grow-and-Take
88-001803
Reproduction
88-001632
Reproductive System
88-001566
Reservoir Release Effects
88-002319
Salinity
88-001488
88-001596
88-001925
Season
88-001632
88-002099
Sodium
88-001563
Spawning
88-001209
88-001413
88-001536
88-001632

...CONTINUED...
Salmo gairdneri
Spawning Cycle Regulation
88-001536
Sperm
88-001651
Sphaerospora
88-001948
Steroids
88-001413
88-001540
88-001541
Stocking/Introductions
88-001757
Stream Improvement/General
88-002319
Stress
88-001614
88-001915
88-001945
88-002123
Survival
88-002099
Swimbladder
88-001486
Swimming Performance
88-001675
Tailwaters
88-002319
Taste Reception
88-001616
TCDD
88-002100
88-002123
Techniques/Biopsy
88-001931
Temperature
88-001417
88-001536
88-001563
88-001629
88-001925
Thyroid Gland
88-001413
88-001414
88-001593
Thyroxine
88-001338
Toxins
88-001616
88-002057
Treatment
88-001940
88-001949
Triploid Fish
88-001651
Trophic Relationships
88-002300
Trophy Fisheries
88-001458
Vanadium
88-002082
Variation Studies
88-001629
Vibrio anguillarum
88-001921
88-001923
88-001925
88-001933
88-001939
88-001940
88-001941
Vibriosis
88-001933
88-001939
88-001940
Viral Diseases
88-001959

...CONTINUED...
Salmo gairdneri
Viral Diseases
88-001961
Vitamins
88-001375
Vitellogenin
88-001566
Whirling Disease
88-001949
Yersinia ruckeri
88-001926
88-001931
Salmo salar
Acidification
88-002093
Administration
88-002409
Aeromonas salmonicida
88-001915
Age/Growth
88-001211
88-001213
88-001230
88-001233
88-001234
88-001482
88-001502
88-001532
88-001831
Aluminum
88-002093
Anemia
88-001975
Bacterial Diseases
88-001915
Blood Chemistry
88-001574
88-002093
Commercial Fishing
88-002465
Condition Factors
88-001532
Culture/Propagation
88-001211
88-001213
88-001216
88-001218
88-001219
88-001221
88-001222
88-001227
88-001228
88-001230
88-001233
88-001234
88-001238
88-001276
88-001482
88-001980
Diets
88-001218
88-001482
Digestive System
88-001599
Distribution/Factors of
88-001831
Distribution/Geographical
88-002465
DNA
88-001639
Early Development
88-001599
88-001608
88-001639
Economic Values
88-001227
Egg Production
88-001238

...CONTINUED...
Salmo salar
Egg Quality
88-001238
Egg Survival
88-001608
Eggs
88-001979
Energy Development
88-002324
Enzymes
88-001525
88-001599
Feeding Experiments
88-001238
Feeds
88-001218
88-001482
Fingerling Production
88-001234
Fish Passage
88-002324
Fish Stocks
88-001222
Foods/Feeding
88-001482
88-001796
Fungal Diseases
88-001943
Furunculosis
88-001915
Gene Transfer
88-001639
Genetic Engineering
88-001639
Gills
88-001525
Growth
88-001216
88-001218
88-001482
Guiding Systems
88-002210
Habitat Alterations
88-002324
Habitat Improvement
88-002324
Habitat Selection
88-001776
Handling Mortality
88-001238
Heated Water
88-001216
88-001227
Heavy Metals
88-002093
Hematology
88-001975
Histology
88-001482
Homing Behavior
88-001221
Hormones
88-001575
Hybridization
88-001652
Jurisdiction
88-002409
Kidneys
88-001575
Length-Weight Relationships
88-001222
Life History/General
88-001751
88-001831
Light
88-001219
Management
88-001751

...CONTINUED...
Salmo salar
Management/Research--Marine
88-002409
Management/Research--Rivers and Streams
88-002324
Mate Selection
88-001779
Maturation
88-001228
Metallothionein
88-001639
Mortality Factors
88-001276
88-001870
Movements
88-002465
Net-Pen Culture
88-001213
88-001276
Ocean Ranching
88-001213
88-001216
88-001219
88-001221
88-001222
88-001230
88-001276
Olfaction
88-001532
Orientation/Homing
88-001221
Osmoregulation
88-001525
Pancreas Disease
88-001980
Parasites/Diseases
88-001915
88-001943
88-001975
88-001979
88-001980
Parasitic Copepods
88-001979
Parr-Smolt Transformation
88-001228
88-001502
88-001525
Pheromones
88-001591
Photoperiodism
88-001502
88-001525
88-001979
Pond Culture
88-001221
Potasium
88-001525
Power Plants
88-002210
Predator/Prey Relationships
88-001796
Production
88-001221
Rearing Density
88-001233
88-001234
Recirculating Systems
88-001227
Recruitment
88-002465
Reproduction
88-001831
Reproductive System
88-001575
Salinity
88-001219

...CONTINUED...
Salmo salar
Salinity
88-001525
Salmincola salmoneus
88-001979
Saprolegnia diclina
88-001943
Sexual Dimorphism/Chromatin
88-001575
Sodium
88-001525
Spawning
88-001776
Spawning Behavior
88-001779
Spawning Channels
88-002324
Steroids
88-001575
Stock Assessment
88-002465
Stress
88-001915
Survival
88-001233
88-001234
88-001482
Tank Culture
88-001221
Temperature
88-001211
88-001230
88-001502
88-001608
88-001979
Thyroxine
88-001525
Treatment
88-001943
Turbines
88-002210
Vitamins
88-001238
88-001975
Water Quality
88-001238
Salmo trutta
Acidification
88-002036
Acidosis
88-001579
Age/Growth
88-001827
88-001831
Alarm Reaction
88-001715
Aluminum
88-002121
Biomass
88-001827
Biosorption
88-002121
Blood Chemistry
88-001473
88-001605
88-001944
Cadmium
88-002074
Circadian Rhythms
88-001715
Condition Factors
88-001458
Distribution/Factors of
88-001831
Dithiocarbamates
88-002074
Enzymes
88-001944

...CONTINUED...
Salmo trutta
Fish Stocks
88-001827
Fungal Diseases
88-001944
Growth
88-002121
Habitat Alterations
88-002320
Habitat Evaluation
88-002319
88-002320
Habitat Selection
88-001785
88-001793
Heavy Metals
88-002121
Hybridization
88-001652
Immune Response
88-001944
Kidneys
88-001366
Life History/General
88-001458
88-001751
88-001793
88-001831
Light
88-001715
Management
88-001751
Management Decisions
88-002211
Management/Research--Rivers and Streams
88-002300
88-002319
88-002320
Maturation
88-002213
Modeling
88-002213
Mortality Factors
88-002121
Mucous Cells
88-001579
88-002121
Olfaction
88-001715
Osmoregulation
88-001473
88-001605
Parasites/Diseases
88-001944
Parr-Smolt Transformation
88-001473
pH
88-002121
88-002121
Photoperiodism
88-001715
Polychlorinated Biphenyls
88-002097
Population Studies
88-002213
88-002320
Potassium
88-001605
Predator/Prey Relationships
88-002300
Production
88-001827
88-002320
Regulations
88-002211
Reproduction
88-001831

...CONTINUED...
Salmo trutta
Reproduction
88-002213
Reservoir Release Effects
88-002319
Rhythmicity
88-001715
Salinity
88-001473
Saprolegnia diclina
88-001944
Season
88-001785
Sodium
88-001605
Stream Improvement/General
88-002319
Stress
88-001579
88-001605
Survival
88-001473
Tailwaters
88-002319
Techniques/Stress
88-001579
Temperature
88-001827
Trophic Relationships
88-002300
Trophy Fisheries
88-001458
Vision
88-001715
Year Class Strength
88-001827
Salmo trutta lacustris
Age/Growth
88-001402
Salmonidae
Acid Water
88-002015
Administration
88-001235
Anisakis
88-001992
Anisakis simplex
88-001992
Calcitonin
88-001496
Calcium
88-001496
Catecholamines
88-001439
Chlordane
88-002023
Chlorinated Hydrocarbons
88-002023
Circadian Rhythms
88-001669
Circannual Rhythms
88-001669
Commercial Fishing
88-002179
88-002477
Culture/Propagation
88-001207
88-001214
88-001217
88-001224
88-001235
88-001236
88-001237
88-001603
88-002179
Dieldrin
88-002023

...CONTINUED...
Salmonidae
Diets
88-001603
Early Development
88-001392
Ecological Analysis
88-002179
Economic Values
88-002179
88-002477
Feeds
88-001603
Fish as Food
88-002490
Fish Counters
88-002310
Food Technology
88-002490
Habitat Selection
88-001770
Hatchery Design
88-001207
88-001214
88-001236
Heated Water
88-001214
Immune Response
88-001439
Incubation
88-001214
Incubation Channels
88-001214
Management/Research--Lakes
88-002284
Management/Research--Marine
88-001235
Management/Research--Reservoirs
88-002309
Management/Research--Rivers and Streams
88-002309
Marking/Tagging/Telemetry
88-002191
Maturation
88-002213
Maximum Sustainable Yield
88-001235
Modeling
88-002213
Mortality Factors
88-002023
Musculature
88-002490
Nematodes
88-001992
Nervous System
88-001439
Ocean Ranching
88-001217
Overwintering
88-001770
Parasites/Diseases
88-001992
Photoperiodism
88-001392
88-001669
Pituitary Gland
88-001496
Pollution
88-002015
Pond Culture
88-001236
Population Studies
88-001770
88-002213
Post-Impoundment Studies
88-002309

...CONTINUED...
Salmonidae
Pre-Impoundment Studies
88-002309
88-002310
Predator/Prey Relationships
88-002309
Production
88-001217
Pseudoterranova decipiens
88-001992
Rearing Ponds
88-001236
Recreational Benefits
88-002179
Reproduction
88-002213
Reservoir Construction
88-002309
Restoration of Anadromous Runs
88-002309
Rhythmicity
88-001669
Sampling
88-002310
Sanitation
88-001236
Screens
88-002310
Social Values
88-002179
Spawning Channels
88-002310
Stocking Rates
88-002284
Techniques
88-001236
Temperature
88-001392
Toxaphene
88-002023
Salvelinus
Foods/Feeding
88-001680
Social Behavior
88-001680
Salvelinus alpinus
Age/Growth
88-001431
Bioenergetics
88-001431
Blood Chemistry
88-001517
Calorific Values
88-001451
Chemoreception
88-001713
Coloration
88-001370
Culture/Propagation
88-001212
88-001241
Diets
88-001229
Distribution/Vertical
88-001370
Early Development
88-001608
88-001752
Egg Survival
88-001608
Embryology
88-001451
88-001752
Feeding Experiments
88-001229
88-002496
Feeds
88-001229

...CONTINUED...
Salvelinus alpinus
Foods/Feeding
88-001431
88-001616
88-001713
88-002496
Growth
88-001241
Head
88-001370
Heated Water
88-001212
Hormones
88-001517
Life History/General
88-001370
88-001752
Lipid Composition
88-001229
Metabolism
88-001451
Mortality Factors
88-001241
Mouth Parts
88-001370
Net-Pen Culture
88-001241
Olfaction
88-001713
Population Studies
88-001241
Rearing Density
88-001212
Respiration
88-001451
Spawning Behavior
88-001752
Spawning Cycle Regulation
88-001212
Taste Reception
88-001616
Temperature
88-001608
Toxins
88-001616
Variation Studies
88-001370
X-Rays
88-002496
Salvelinus confluentus
Early Development
88-001331
Salvelinus fontinalis
Acid Precipitation
88-002245
Acidification
88-002111
Aeromonas salmonicida
88-001917
Age/Growth
88-001833
Bacterial Diseases
88-001917
Bioassay Techniques
88-002111
Biological Indicators
88-002078
88-002111
Cadmium
88-002078
88-002079
Condition Factors
88-001458
Culture/Propagation
88-001296
Diurnal Rhythm
88-001731

...CONTINUED...
Salvelinus fontinalis
Electrophoresis
88-001388
Enzymes
88-001388
Escape Behavior
88-001679
Foods/Feeding
88-001679
88-001731
Fright Behavior
88-001679
Furunculosis
88-001917
Habitat Selection
88-001679
88-001776
88-001785
88-001793
Heavy Metals
88-002078
88-002079
Legal Aspects
88-001296
Life History/General
88-001458
88-001773
88-001793
Management/Research--Rivers and Streams
88-002300
Marking/Tagging/Strontium
88-001296
Metallothionein
88-002078
88-002079
Modeling
88-002245
Otoliths
88-001833
Parasites/Diseases
88-001917
pH
88-002245
88-002245
Polychlorinated Biphenyls
88-002097
Population Studies
88-001757
88-001773
Predator/Prey Relationships
88-002300
Scales
88-001833
Season
88-001785
Spawning
88-001776
Stocking/Introductions
88-001757
Stress
88-002078
Temperature Selection
88-001731
Trophic Relationships
88-002300
Trophy Fisheries
88-001458
Salvelinus malma
Competition
88-001708
Habitat Selection
88-001708
Salvelinus namaycush
Acid Precipitation
88-002245
Acidification
88-001332

...CONTINUED...
Salvelinus namaycush
Acidification
88-002011
Age/Growth
88-001332
Aluminum
88-002075
Bioassay Techniques
88-002005
Calcium
88-002075
Catch Rates
88-002226
Condition Factors
88-001458
Culture/Propagation
88-001223
88-001430
Diets
88-001223
Early Development
88-002075
Economic Values
88-002274
Embryology
88-002075
Fisherman Surveys
88-002293
Foods/Feeding
88-001796
88-002075
Harvest
88-002283
Heavy Metals
88-002075
Hematology
88-001386
Hormones
88-001430
Induced Maturation
88-001430
Life History/General
88-001458
Management/Research--Lakes
88-002274
88-002283
Modeling
88-002226
88-002245
Mortality Rates
88-002226
pH
88-002075
Polychlorinated Biphenyls
88-002097
Potassium
88-002075
Predator/Prey Relationships
88-001796
88-002075
Regulations/Catch Limits
88-002293
Reproduction
88-001430
88-002005
Skeletal System
88-002075
Social Values
88-002274
88-002293
Stock Assessment
88-001332
Stocking Rates
88-002283
Stocking/Introductions
88-002226
Survival
88-001332

...CONTINUED...
Salvelinus namaycush
Toxins
88-002075
Trophy Fisheries
88-001458
Sarda sarda
Abnormalities
88-001323
Sardina pilchardus
Egg Composition
88-001604
Reproduction
88-001604
Reproductive Cycle
88-001604
Spawning
88-001604
Sardinella brasiliensis
Fecundity
88-001484
Reproduction
88-001484
Reproductive Cycle
88-001484
Spawning
88-001484
Sarotherodon galilaeus
Culture/Propagation
88-001912
Disease-Free Culture
88-001912
Parasites/Diseases
88-001912
Scaphirhynchus platorynchus
Habitat Selection
88-001790
Movements
88-001790
Scardinus erythrophthalmus
Habitat Selection
88-001692
Interspecies Relationships
88-001692
Scarus compressus
Dentition
88-001330
Morphology
88-001330
Mouth Parts
88-001330
Scarus dubius
Pituitary Gland
88-001463
Scarus ghobbans
Dentition
88-001330
Morphology
88-001330
Mouth Parts
88-001330
Scarus perrico
Dentition
88-001330
Morphology
88-001330
Mouth Parts
88-001330
Scarus rubroviolaceus
Dentition
88-001330
Morphology
88-001330
Mouth Parts
88-001330
Schilbe mystus
Electrophoresis
88-001621

...CONTINUED...
Schilbe mystus
Evolution
88-001621
Variation Studies
88-001621
Sciaenops ocellatus
Age/Growth
88-002228
Anesthetics
88-001569
Blood Chemistry
88-001569
88-001570
Cortisol
88-001569
Culture/Propagation
88-001569
Fluorescent Pigments
88-002192
Foods/Feeding
88-001418
Glucose
88-001569
Marking/Tagging
88-002192
Modeling
88-002228
Parasites/Diseases
88-001570
Phosphorus
88-001418
Rearing Density
88-001570
Stress
88-001569
88-001570
Transportation
88-001569
88-001570
von Bertalanffy Growth Function
88-002228
Scomber scombrus
Bacterial Diseases
88-001928
Modeling
88-001732
Mycobacterium
88-001928
Parasites/Diseases
88-001928
Swimming Performance
88-001732
Scomberomorus maculatus
Age/Growth
88-001828
Management/Research--Marine
88-001828
Stock Assessment
88-001828
Scombridae
Amino Acids
88-001424
Musculature
88-001424
Scopelogadus beanii
Fungal Diseases
88-001973
Ichthyophonus
88-001973
Parasites/Diseases
88-001973
Scophthalmus maximus
Age/Growth
88-001320
Bacterial Diseases
88-001941
Bacterial Flora
88-001534

...CONTINUED...
Scophthalmus maximus
Culture/Propagation
88-001954
Early Development
88-001320
Gill Diseases
88-001321
Gills
88-001321
88-001534
Hematology
88-001399
Histology
88-001320
88-001321
Infectious Pancreatic Necrosis
88-001954
Parasites/Diseases
88-001321
88-001941
88-001954
Vibrio anguillarum
88-001941
Viral Diseases
88-001954
Scyliorhinus
Cardio-Vascular System
88-001507
Scyliorhinus canicula
Bile
88-001459
Cadmium
88-002127
Gall Bladder
88-001459
Heavy Metals
88-002127
Hematology
88-002127
Immunoglobulins
88-001459
Liver
88-001459
Sebastes
Distribution/Geographical
88-001840
Larval Drift
88-001840
Sebastes alutus
Meristic Studies
88-001350
Variation Studies
88-001350
Sebastes caurinus
Foods/Feeding/Selectivity
88-001816
Sebastes ciliatus
Foods/Feeding/Selectivity
88-001816
Sebastes emphaeus
Foods/Feeding/Selectivity
88-001816
Sebastes entomelas
Foods/Feeding/Selectivity
88-001816
Sebastes flavidus
Foods/Feeding/Selectivity
88-001816
Sebastes maliger
Foods/Feeding/Selectivity
88-001816
Sebastes melanops
Age/Growth
88-002500
Foods/Feeding/Selectivity
88-001816
Otolith Preparation
88-002500

...CONTINUED...
Sebastes melanops
Otoliths
88-002500
Photoperiodism
88-002500
Sebastes nebulosus
Foods/Feeding/Selectivity
88-001816
Sebastes nigrocinctus
Foods/Feeding/Selectivity
88-001816
Sebastes ruberrimus
Foods/Feeding/Selectivity
88-001816
Sebastes taczanowskii
Obelia longissima
88-001974
Parasites/Diseases
88-001974
Semaprochilodus insignis
Growth
88-001842
Semaprochilodus taeniurus
Growth
88-001842
Semotilus atromaculatus
Distribution/Geographical
88-001848
Seriola aureovittata
Parasites/Diseases
88-001957
Viral Diseases
88-001957
Seriola dumerili
Parasites/Diseases
88-001957
Viral Diseases
88-001957
Seriola lalandi
Chafing Behavior
88-001665
Seriola nigrofasciata
Chromosome Studies
88-001650
Karyotypes
88-001650
Variation Studies
88-001650
Seriola quinqueradiata
Bacterial Diseases
88-001938
Oxolinic Acid
88-001938
Parasites/Diseases
88-001938
88-001957
Pasteurella piscicida
88-001938
Pseudotuberculosis
88-001938
Viral Diseases
88-001957
Serranus
Taxonomy
88-001894
Serranus baldwini
Social Behavior
88-001671
Serrasalmus nattereri
Copepoda
88-001963
Ergasilidae
88-001963
Parasites/Diseases
88-001963
Parasitic Copepods
88-001963

...CONTINUED...
Serrasalmus nattereri
Rhinergasilus piranhus
88-001963
Serrivomer beani
Distribution/Geographical
88-001869
Distribution/Seasonal
88-001869
Larval Drift
88-001869
Management/Research--Marine
88-001869
Season
88-001869
Sicyases sanguineus
Foods/Feeding
88-001663
Sillago japonica
Egg Size
88-001491
Egg Survival
88-001491
Season
88-001491
Spawning
88-001491
Temperature
88-001491
Sillago maculata
Life History/General
88-002399
Management/Research--Estuaries
88-002399
Mosquito Control
88-002399
Silurus glanis
Nervous System
88-001353
Parasites/Diseases
88-001960
Reproduction
88-001618
Reproductive Cycle
88-001618
Spring Viraemia
88-001960
Taste Buds
88-001353
Taste Reception
88-001353
Viral Diseases
88-001960
Solea senegalensis
Helminths
88-001965
Parasites/Diseases
88-001965
Solea solea
Helminths
88-001965
Parasites/Diseases
88-001965
Somniosus rostratus
Distribution/Geographical
88-001850
Distribution/Vertical
88-001850
Sparus aurata
Bucephalidae
88-001971
Culture/Propagation
88-001984
Foods/Feeding
88-001814
Labratrema minimus
88-001971
Lymphocystis
88-001958

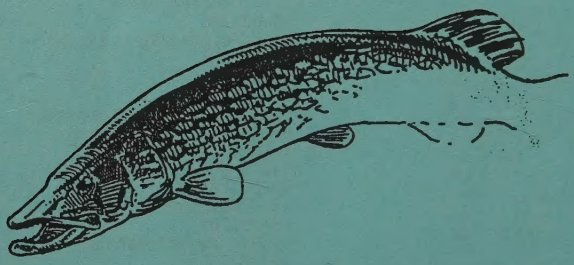
...CONTINUED...
Sparus aurata
Parasites/Diseases
88-001958
88-001971
88-001984
Trematodes
88-001971
Viral Diseases
88-001958
Squaliformes
Litter
88-002009
Plastics
88-002009
Squalus
Cardio-Vascular System
88-001507
Squalus acanthias
Embryology
88-001499
Hormones
88-001589
Nervous System
88-001589
Nitrogen
88-001499
Stegastes altus
Foods/Feeding
88-001700
Photoperiodism
88-001700
Spawning Behavior
88-001700
Territorial Behavior
88-001700
Stizostedion lucioperca
Cage Culture
88-001199
Culture/Propagation
88-001199
Feeding Experiments
88-001199
Fingerling Production
88-001199
Pond Culture
88-001199
Stizostedion vitreum
Cannibalism
88-001256
Competition
88-001872
Culture/Propagation
88-001253
88-001256
Ecological Analysis
88-002372
Foods/Feeding
88-001778
88-001872
Fry Production
88-001253
Hooking Mortality
88-002201
Hooking Stress
88-002201
Hooks
88-002201
Lampricides
88-002120
Management/Research--Reservoirs
88-002360
88-002372
88-002395
Nets/Gill Nets
88-002209
Planning
88-002395

...CONTINUED...
Stizostedion vitreum
Population Studies
88-002372
88-002395
Predator/Prey Relationships
88-001872
Production
88-002360
Recruitment
88-002209
Regulations/Size Limits
88-002360
Spawning
88-001778
Spawning Migration
88-001778
Stocking/Introductions
88-002372
TFM
88-002120
Water Level Fluctuations
88-002395
Stizostedion vitreum vitreum
Aluminum
88-002089
Angling
88-001768
Calcium
88-002089
Catch Per Unit Effort
88-002367
Climate
88-001763
Copper
88-002089
Cryopreservation
88-001300
Culture/Propagation
88-001300
Energy Development
88-002367
Environmental Impact Assessments
88-002367
Fish Passage
88-002367
Food Conversion Efficiency
88-001385
Foods/Feeding
88-001385
Gamete Storage
88-001300
Harvest
88-001768
Heavy Metals
88-002089
88-002094
Histology
88-002089
Iron
88-002089
Management/Research--Reservoirs
88-002367
88-002368
Mercury
88-002094
Metabolism
88-001385
Migration
88-002367
Myofibrogranuloma
88-002089
Myopathy
88-002089
Parasites/Diseases
88-002089
Population Studies
88-001768

...CONTINUED...
Stizostedion vitreum vitreum
Production
88-002368
Selenium
88-002089
Stocking/Introductions
88-002368
Tailwaters
88-002367
Techniques/Tissue Sampling
88-002094
Water Level Fluctuations
88-001763
Year Class Strength
88-001763
Zinc
88-002089
Syacium latifrons
Distribution/Geographical
88-001865
Symphurus
Taxonomy
88-001895
Syngnathus typhle
Mate Selection
88-001658
Parental Behavior
88-001658
Tanakia tanago
Culture/Propagation
88-001290
Diets
88-001290
Early Development
88-001290
Endangered/Threatened Species
88-001290
Hatchery Design
88-001290
Incubation
88-001290
Incubators
88-001290
Larvae
88-001290
Teleocichla
New Genus
88-001892
Teleocichla centrarchus
Habitat Selection
88-001892
Morphology
88-001892
New Species
88-001892
Taxonomy
88-001892
Teleocichla cinderella
Habitat Selection
88-001892
Morphology
88-001892
New Species
88-001892
Taxonomy
88-001892
Teleocichla gephyrogramma
Habitat Selection
88-001892
Morphology
88-001892
New Species
88-001892
Taxonomy
88-001892
Teleocichla monogramma
Habitat Selection
88-001892
...CONTINUED...
Teleocichla monogramma
Morphology
88-001892
New Species
88-001892
Taxonomy
88-001892
Teleocichla prionogenys
Habitat Selection
88-001892
Morphology
88-001892
New Species
88-001892
Taxonomy
88-001892
Teleocichla proselytus
Habitat Selection
88-001892
Morphology
88-001892
New Species
88-001892
Taxonomy
88-001892
Thalassoma bifasciatum
Habitat Selection
88-001733
Hormones
88-001501
Mate Selection
88-001733
Maturation
88-001501
Reproductive System
88-001501
Thalassoma duperrey
Early Development
88-001472
Egg Size
88-001472
Histology
88-001472
Photoperiodism
88-001471
Reproduction
88-001471
Reproductive Cycle
88-001472
Tides
88-001472
Theragra chalcogramma
Abundance/Seasonal
88-001760
Age/Growth
88-001746
Currents
88-001620
Distribution/Geographical
88-001620
88-001746
Distribution/Seasonal
88-001620
Egg Drift
88-001760
Foods/Feeding
88-001746
Population Studies
88-001760
Production
88-001760
Reproduction
88-001468
88-001620
Stock Assessment
88-001468
Thunnus
Commercial Fishing
88-002458

...CONTINUED...
Thunnus
Exploitation Rates
88-002458
Forecasting
88-002458
Gear Efficiency
88-002458
Management/Research--Marine
88-002423
88-002458
Nets/Purse Seines
88-002458
Production
88-002458
Thunnus alalunga
Exploitation Rates
88-002234
Fisheries
88-002234
Management/Research--Marine
88-002234
Modeling
88-002234
Thunnus albacares
Cestodes
88-001964
Dasyrhynchus talismani
88-001964
Marking/Tagging/Tetracycline
88-002190
Parasites/Diseases
88-001964
Thymallus thymallus
Cage Culture
88-001199
Culture/Propagation
88-001199
Feeding Experiments
88-001199
Fingerling Production
88-001199
Pond Culture
88-001199
Tilapia
Culture/Propagation
88-001254
Legal Aspects
88-001254
Tilapia aurea
Age/Growth
88-001255
Biosorption
88-002063
Culture/Propagation
88-001255
88-001265
Habitat Selection
88-002187
Invertebrate Culture
88-001265
Monoculture
88-001255
Polyculture
88-001255
88-001265
Salinity
88-002063
Temperature
88-002187
Toxins
88-002063
Tilapia hornorum
Age/Growth
88-001255
Culture/Propagation
88-001255
Monoculture
88-001255
...CONTINUED...
Tilapia hornorum
Polyculture
88-001255
Tilapia nilotica
Age/Growth
88-001255
Culture/Propagation
88-001255
88-001265
Invertebrate Culture
88-001265
Monoculture
88-001255
Polyculture
88-001255
88-001265
Tilapia zillii
Distribution/Factors of
88-001846
Distribution/Geographical
88-001846
Evolution
88-001846
Water Pollution
88-002030
Tinca tinca
Digestive System
88-001367
Foods/Feeding
88-001812
Histology
88-001367
Samplers/Stomach
88-001812
Stomach Fullness
88-001812
Taxonomy
88-001367
Trachurus japonicus
Coloration
88-001362
Head
88-001361
Morphology
88-001361
88-001362
Mouth Size
88-001361
Variation Studies
88-001361
Trematomus bernachii
Life History/General
88-002440
Management/Research--Marine
88-002440
Triakis
Cardio-Vascular System
88-001514
Trichonotus nikii
Distribution/Vertical
88-001701
Foods/Feeding
88-001701
Trophic Relationships
88-001701
Tridentiger trigonocephalus
Distribution/Geographical
88-001866
Exotic Species
88-001866
Stocking/Introductions
88-001866
Triportheus albus
Growth
88-001842
Triportheus angulatus
Growth
88-001842

Triportheus elongatus
Growth
88-001842
Trisopterus minutus capelanus
Lernaeocera
88-001962
Parasites/Diseases
88-001962
Parasitic Copepods
88-001962
Ulvaria subbifurcata
Aggressive Behavior
88-001681
Competition
88-001681
Parental Behavior
88-001681
Spawning Behavior
88-001681
Territorial Behavior
88-001681
Umbra limi
Cytotoxicity
88-002101
Mutagens
88-002101
Techniques/Toxicity
88-002101
Uranoscopus dahlakensis
Distribution/Geographical
88-001877
Morphology
88-001877
New Species
88-001877
Taxonomy
88-001877
Uranoscopus marisrubri
Distribution/Geographic
88-001878
Distribution/Vertical
88-001878
Morphology
88-001878
New Species
88-001878
Taxonomy
88-001878
Uranoscopus scaber
Distribution/Geographical
88-001877
Valamugil georgii
Life History/General
88-002399
Management/Research--Estuaries
88-002399
Mosquito Control
88-002399
Vanneaugobius canariensis
Distribution/Geographical
88-001900
Morphology
88-001900
New Species
88-001900
Taxonomy
88-001900
Vanneaugobius dollfusi
Distribution/Geographical
88-001900
Morphology
88-001900
Taxonomy
88-001900
Vanneaugobius pruvoti
Distribution/Geographical
88-001900
...CONTINUED...
Vanneaugobius pruvoti
Morphology
88-001900
Taxonomy
88-001900
Wheelerigobius
Distribtuion/Geographical
88-001900
Morphology
88-001900
Taxonomy
88-001900
Xiphias gladius
Commercial Fishing
88-002405
Xiphophorus maculatus
Histology
88-001334
Morphology
88-001334
Olfaction
88-001334
Xyrauchen texanus
Abundance/Factors of
88-001766
Distribution/Geographical
88-001766
Early Development
88-001766
Foods/Feeding/Selectivity
88-001766
Plankton
88-001766
Predator/Prey Relationships
88-001766
Xyrichthys melanopus
Distribution/Vertical
88-001701
Foods/Feeding
88-001701
Trophic Relationships
88-001701



SUBSCRIPTION INFORMATION

For current subscription price contact:

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

U.S. Federal Agencies in wildlife-related fields and individuals or agencies who exchange domestic or foreign publications may receive free subscription to *Fisheries Review* by writing to:

Office of Information Transfer
Editorial Section - *Fisheries Review*
U.S. Fish and Wildlife Service
1025 Pennock Place
Fort Collins, Colorado 80524

CHANGE OF ADDRESS

If SFA is the first entry on the first line of your address label, send your new address and your former address **exactly** as it appears on your mailing label to:

The Government Printing Office
Superintendent of Documents
Washington, DC 20402

If a 12 character code appears as the first line of the label, send your new address and your former address **exactly** as it appears on your mailing label to:

Office of Information Transfer
Editorial Section - *Fisheries Review*
U.S. Fish and Wildlife Service
1025 Pennock Place
Fort Collins, Colorado 80524

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
EDITORIAL SECTION
1025 PENNOCK PLACE
FORT COLLINS, CO 80524

PRESORTED
SPECIAL FOURTH-CLASS RATE
POSTAGE & FEES PAID
USDI
PERMIT No. G-77

UTHER0003971
Library
Natl. Marine Fish Service
2570 Dole St.
Honolulu, HI 96822-2396